

# 15<sup>th</sup> National Conference on Chronic Disease Prevention and Control

## Abstract Book



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**HEALTHIER**  
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The Will and the Way

Hilton Washington and Towers  
Washington, D.C.  
November 29–December 1, 2000



Prevention Research  
Centers Program



**ASTCDPD**

Association of State and Territorial  
Chronic Disease Program Directors

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# **15<sup>th</sup> National Conference on Chronic Disease Prevention and Control**



## **Abstract Book**

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**Concurrent  
Oral  
Presentations**

Wednesday, November 29, 2000

## Using Focus Groups to Plan School-Based Heart Disease Prevention Programs

*J. Connolly*

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**Objective:** To assess the current determinants of children's eating and exercise habits, and to explore building support for school-based policies that favor healthier habits.

**Setting:** The increasing prevalence of childhood obesity has become a major public health concern. Secretary of Agriculture Dan Glickman and major health care groups have identified schools as optimal settings for program implementation to reverse this trend. Focus groups are effective tools for understanding health behaviors.

**Methods:** Third-graders, parents, and teachers in three New York school districts participated in focus groups. Fourteen groups were conducted with a total of 255 participants. Discussion topics included the determinants of diet and physical activity habits. Transcriptions were mapped for major themes that were used to guide coalition building and programming for a school-based heart disease prevention program.

**Results:** There were two recurrent themes that the authors distilled into the following theoretical frameworks. The first is that concurrent and interactive trends exist in the school environment and home environment. In the school environment availability of high-fat and high-sugar foods has increased. In the home environment use of processed and fast foods has increased. The interaction between events in these two environments is leading to a self-perpetuating cycle of increased exposure and demand. The second theme is summarized as overenrollment in structured activities associated with a decrease in actual time children are active. Management of children's schedules decreases time for high-quality family meals.

**Conclusions:** These findings are being used to build coalitions of parent and school administrators through increased awareness of interactions noted earlier. Findings are also being used to guide program planning and implementation, which will emphasize community changes.

**Learning Objectives:** Participants will be able to 1) describe the interactions between home and school environments that support unhealthy eating and physical activity choices among children, 2) integrate this information with information on national trends in childhood obesity, lifestyle habits, and health care costs, and 3) explore ways to increase support for school-based programming and community changes that can make a difference.

Wednesday, November 29, 2000

## Chronic Disease Prevention Strategies for Preschool-Aged Children: A Community Demonstration

*M. Knowlton, S. Jennings*

**Purpose of the Program:** To reduce chronic disease risk in 2–5 year old children to prevent childhood overweight by promoting three core strategies: 1) increase fruit and vegetable consumption; 2) increase low-fat dairy consumption; and 3) increase age-appropriate physical activity.

**Setting:** Target community agencies: WIC; Daycare Centers and Home-Based; and Emergency Food Systems. A Council, made up of vested community agencies and individuals, guides development and implementation of project initiatives with coaching from a Public Health Nutritionist.

**Interventions:** A comprehensive planning phase to assess perceptions, needs, and existent and nonexistent resources established a baseline to determine interventions. Consistent coordination of the three strategies across all target agencies.

**Outcomes:** Consistent coordination of the three strategies across all target agencies continues to produce marked changes in client behavior. Apple coupon and milk taste test campaigns realized a significant increase in apple sales and established that young children have no preference for dairy type. A major day care provider in the county, serving 700 children, changed all milk served to 1% for children aged 2–5. Partnership with the local Agriculture Promotion Board and Emergency Food Pantries established education and policy development initiatives. A physical activity guide for young families was produced and distributed to clients in target agencies and the general public. Each guide contains a returnable survey card querying satisfaction with content and suggestions for improvement.

**Conclusions:** All local community organizations and agencies that serve or touch the population aged 2–5 are now actively involved in coordinated promotion of the three strategies. Changes are being made to day care menus to increase fruit, vegetable, and low-fat dairy consumption. Improvements in the emergency food systems have increased amounts of fresh produce available. Work with WIC will increase levels of low-fat dairy consumption. All target agencies implement physical activity promotion strategies.

**Learning Objectives:** Participants will understand how to adopt environmental methodologies used by the demonstration project to implement core strategy initiatives with community partners and successfully modify client behaviors.

Wednesday, November 29, 2000

## Racial and Ethnic Disparities in Risk Behaviors Among High School Students

*J. Grunbaum, L. Kann*

**Objective:** To identify racial and ethnic disparities in the prevalence of health risk behaviors among high school students.

**Setting:** Cigarette smoking, unhealthy dietary behaviors, and physical inactivity are often established during youth and can contribute to chronic disease-related morbidity and mortality.

**Method:** The 1999 Youth Risk Behavior Survey is a nationally representative survey of students in grades 9–12. SUDAAN was used to compute 95% confidence intervals and identify differences between subpopulations at the  $P < 0.05$  level.

**Result:** African American female and male students were significantly less likely than white and Hispanic female and male students to have smoked a cigarette in the past month. Among students who smoked in the past month, African American female and male students were significantly less likely than white female and male students to have smoked 10 or more cigarettes per day. Among female students, African American and Hispanic students were significantly more likely than white students to be at risk for becoming overweight (based on body mass index [BMI]), and white students were significantly more likely than African American and Hispanic students to engage in vigorous and moderate physical activity. African American and Hispanic female and male students were significantly more likely than white female and male students to watch television  $\geq 2$  hours/day. Among male and female students no significant differences were identified among the racial/ethnic groups in the percentage who were overweight (based on BMI).

**Conclusion:** Sex-specific racial and ethnic disparities in the prevalence of chronic disease-related risk behaviors have important implications for the development of youth-focused interventions to reduce risk for chronic disease in adulthood.

**Learning Objective:** Participants should be able to identify how health risk behaviors related to risk for chronic disease vary by race and ethnicity.

Wednesday, November 29, 2000

## Evaluation of Healthy Choices: A School-Based Nutrition and Physical Activity Program

*J. Robarts, M. Bettencourt, D. Pearlman, E. Metallinos-Katsaras*

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**Objective:** To improve nutrition and physical activity habits among middle school-aged young people.

**Setting:** Seven public middle schools in Massachusetts of varying geographic, demographic, and socioeconomic backgrounds implemented a Healthy Choices program in the 1999–2000 school year.

**Intervention:** The Healthy Choices program is a model middle school-based program that emphasizes a team approach to developing and implementing nutrition and physical activities. Interventions included noncompetitive and competitive physical activities, nutrition education, preparation of healthy snacks and meals, fitness testing, and a humorous theater production, “This Is Your Life!,” that educates students about osteoporosis prevention through good nutrition and physical activity habits.

**Outcome:** The evaluation includes both outcome and process evaluation. Outcomes of interest include changes in nutrition and physical knowledge, attitudes, and behavior. Data has been collected on fruit and vegetable intake, high-fat snack consumption, television and video watching, computer and video game-playing, participation in a variety of physical activities, height, and weight. Process data collected at each site includes the number of students reached, barriers to implementation, the components of the program, and the make-up of the Healthy Choices team. The analysis of this data is not yet complete.

**Conclusion:** The outcome and process evaluation results of the Healthy Choices program will be presented.

**Learning Objective:** Participants will be able to describe the basic components of the Healthy Choices model, summarize the results of the evaluation project, and list the main factors associated with an effective program

Wednesday, November 29, 2000

## Evaluation of a Mailed Intervention to Promote Repeat Mammography

M. Partin, M. Winnett, M. Malone, J. Slater, A. Bar-Cohen, L. Caplan

**Objective:** To assess the effectiveness of two mailed interventions for increasing repeat mammography among women aged 40–64 years.

**Setting:** Although the proportion of women ever having a mammogram has risen dramatically over the past 20 years, sustained compliance with routine screening remains low. Substantial reductions in breast cancer mortality will not be achieved until effective means to increase compliance rates are identified.

**Method:** A total of 1,558 women enrolled in a federally funded screening program were randomized to three groups: 1) those who received a program reminder 2 months before the rescreening due date, 2) those who received a thank-you card within 1 month of program participation, three patient newsletters, and a reminder, and 3) those who received no mailings (control). Logistic regressions were used to estimate the intervention effects on the odds of being rescreened through the program <13 and <15 months after the previous mammogram.

**Result:** Although neither intervention significantly affected the proportion of women rescreened in <13 months, women in the maximum intervention were almost 30% more likely to be rescreened in <15 months relative to controls (odds ratio 1.297, 95% confidence interval 1.006–1.672).

**Conclusion:** These findings suggest that a low-cost, easily implemented mailed intervention can increase repeat mammography use among participants in this screening program. Because the program is part of a national initiative implemented in all states and territories, the possibilities for widespread incorporation are substantial.

**Learning Objective:** Participants should be able to summarize the content and estimated effectiveness of the intervention evaluated in this study.

Wednesday, November 29, 2000

## Acceptability of a Health Department Intervention for CVD Risk Reduction: North Carolina WISEWOMAN

*A. Ammerman, K. Tawney, W. Rosamond, B. Garcia, L. Macon, T. Keyserling, S. Aytur, A. Jacobs, A. Mokdad*

**Objective:** To assess the acceptability and impact on counselor practices and attitudes of a structured diet and physical activity intervention in county health departments.

**Setting:** Low-income women are at higher risk for heart disease but have limited access to preventive care. County health departments offer an avenue to reach these women.

**Method:** Thirty-three health departments participated in North Carolina WISEWOMAN. Twenty-two health departments were assigned to enhanced intervention (EI) and implemented the New Leaf program, a 12-month program guiding diet and physical activity counseling by staff. Surveys were administered to staff before (n=126) and after (n=61) the 12-month intervention, and to patients (n=331) at follow-up.

**Result:** At baseline, only 32% of health counselors reported the majority of patients they counsel are “likely to follow lifestyle recommendations.” Patient barriers perceived by staff included high cost (63%) and burden of increased physical activity (77%). After 1 year of counseling, EI health counselors were more likely to help patients set short-term dietary and physical activity goals (60% and 68% vs. 29% and 41%) and to discuss attitudes about and obstacles to lifestyle change (76% vs. 29%). Twice as many EI counselors strongly agreed that they were successful in helping patients improve diet and physical activity (12% and 18% vs. 6% and 6%). At follow-up, 50% of counselors stated the program was very valuable and 47%, somewhat valuable; 77% of patients were very satisfied with the program, and 22%, somewhat satisfied.

**Conclusion:** Despite early skepticism, the New Leaf program facilitated improved counseling practices and was well accepted by patients and counselors.

Wednesday, November 29, 2000

## Lay Health Advisors Increase Cervical Cancer Screening Rates Among Mexican Farmworkers

*F. Boucher*

**Objective:** To assess the impact of trained lay health advisors (*Promotores/as de salud*) upon cervical cancer screening rates (as measured by the Spanish-language Behavioral Risk Factor Surveillance System [BRFSS]) in a population of Mexican farmworkers living in migrant labor camps in Northern California between 1997 and 1999.

**Setting:** Hispanic women have the highest incidence and mortality rates of cervical cancer of any ethnic group in the United States and also exhibit the lowest Papanicolaou (Pap) test screening rates. Incidence among rural Hispanic women in California is 37/100,000, compared with a statewide average rate of 7/100,000, and cervical cancer mortality is 3.8/100,000 compared with 2.1/100,000. Farmworkers, who are the poorest and least educated of California's Hispanics, have screening rates much lower than those of Hispanic women nationwide. Targeted interventions involving community organizations have proved effective in raising Pap test rates in Hispanic populations.

**Method:** In the summer of 1997, the Spanish-language BRFSS was administered to 614 Hispanic farmworker women resident in six migrant labor camps in Northern California. In the summer of 1998, volunteer lay health advisors resident in those same camps were recruited for an 8-week training program on cervical cancer and subsequently presented public education sessions for the residents. In the summer of 1999, the Spanish-language BRFSS was readministered to a sample of 200 women. The results were analyzed using STATA. No services were provided by the project, though information about providers of free or low-cost services was disseminated.

**Result:** The reported screening rates among farmworker women were very significantly increased in each of the four sites (average increase 28%). In addition, rates of knowledge of Pap tests increased to an average of 94%, and an average of 42% of respondents reported that they had heard of Pap tests for the first time from the *promotores/as*. Several elements, including structure of the meetings, methods of recruitment, and the nature of the curriculum, contributed to this success.

**Conclusion:** Volunteer lay health advisors, even those with low literacy in Spanish and no English skills, are very successful in reaching poor, rural Hispanic populations with health promotion messages and are effective agents of change in increasing screening rates.

**Learning Objective:** Participants should be able to describe the advantages volunteer lay health advisors have in reaching underserved populations and promoting healthy screening behaviors.

Wednesday, November 29, 2000

## Diabetes Education in Faith-Based Settings: Re-Creating a “Community of Care”

*K. Campbell-Voytal, J. Waller, Jr.*

**Objective:** To link an important community asset, the faith-based institution, with a diabetes self-management program targeting the empowerment of minority peoples.

**Setting:** The Morris J. Hood, Jr. Comprehensive Diabetes Center, Wayne State University, offers its Community-Based Diabetes Intervention Program in faith institutions in the metropolitan Detroit area. It is a collaborative effort of local religious, professional, and community residents.

**Intervention:** This empowerment model of health education is predicated on an extensive initial phase of relationship-building in each faith setting. The second phase is the educational component, which uses a team to teach effective diabetes management. During this time key physiological measures are provided to participants as they learn to evaluate their self-management efforts. The final evaluation phase includes qualitative measures of personal and group empowerment.

**Outcome:** Qualitative feedback through public testimony, focus group discussion, and the personal report of faith leaders revealed that the faith setting enabled the development of a sense of collective caring that potentiated learning and behavior change; that initial relationships of trust, commitment, and mutual understanding were critical to transcending suspicion and enabling success; and that many participants desired ongoing contact with their fellow group members to sustain this “community of care” and continue living successfully with diabetes.

**Conclusion:** The faith-based setting adds value to initiatives targeting health risks in minority communities. Redefining a community of care to include a critical awareness of the power of prevention and the value of mutual commitment empowers individuals and communities.

**Learning Objective:** Participants should be able to describe a structure and process for partnering with faith-based institutions; how creating a “community of care” empowers individuals and communities to improve diabetes management; and the importance of including qualitative measures in the evaluation of empowerment in community-based health education programs.

Wednesday, November 29, 2000

## Choose to Move 1999—An American Heart Association Behavior Modification Program for Women

D. Matson Koffman, T. Bazzarre, L. Mosca, R. Redberg, T. Schmid, W. Wattigney

**Objective:** To evaluate the impact of Choose to Move on improving physical activity, nutrition, and knowledge about heart disease and stroke in women.

**Setting:** Choose to Move was designed by the American Heart Association in collaboration with the Cooper Institute and the Centers for Disease Control and Prevention.

**Intervention:** This self-help program provided information to help participants meet their physical activity and nutrition goals. Participants were asked to return evaluation cards every 2 weeks during the 12-week program.

**Outcomes:** There were 23,171 women who enrolled in the program. Among those who completed the final 12th week evaluation (N=3,254), a greater proportion were doing physical activity at a level described as “action” (moderate exercise 5 times or more per week at 30 minutes per day) by the end of the program. On an 8-point scale, the mean score increased from  $4.5 \pm 1.6$  at baseline to  $5.2 \pm 1.4$  at follow-up ( $P=0.0001$ ). Among those who completed the 8th week evaluation (N=3,368), participants who said they were limiting excess calories or fat in their diet increased from 72% at baseline to 91% at follow-up ( $P=0.001$ ).

**Conclusion:** The Choose to Move Program significantly improved self-reported physical activity and nutrition in a cohort of participants. Results support the *Healthy People 2010* objectives for physical activity, nutrition, and cardiovascular health.

**Learning Objective:** Participants will be able to describe the Choose to Move Program and its results.

Wednesday, November 29, 2000

## Implementation and Evaluation of the New York State Commissioner's Physical Activity and Nutrition Challenge

*L. Wolfe*

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**Setting:** New York State Department of Health worksites statewide.

**Intervention:** For the past 4 years, the New York State Department of Health has used a 10-week, incentive-based, goal-setting program called the Commissioner's Challenge to promote physical activity and consumption of fruit and vegetables. A modified stage-of-change model was used in the beginning and end of each year to evaluate movement within these behaviors. Participants registered and used a point system to log individual activity. Participants were awarded incentives for completing the program and the evaluation form. The program was determined a success and formed into a statewide program called "Move for Life," which was funded by the State Cardiovascular Comprehensive Grant.

**Outcome:** More than 5,000 of the 8,000 Department of Health employees representing 60 worksites joined at least once in the 4 years. More than 70% reached their goals each year. Results to be discussed include yearly stage-of-change movement, results of a cohort for the 4 years, and first year results of Move for Life.

**Learning Objective:** Short-term gains in moderate or vigorous levels of physical activity increase during the course of the program each year and are sustained at that level 3 months later. Each year, participants return to their initial levels of physical activity, which raises the question if we should do the program all year. A significant increase is apparent in fruits and vegetables 1 year later.

Wednesday, November 29, 2000

## Improving Physical Activity for All Ages and Populations: The Take Charge Challenge

*B. Leonard*

**Background:** The Take Charge Challenge (TCC) was initially designed in 1995 for the Georgia Division of Health, and its name and design has been changed and modified several times during the last 6 years. It has been carried out in more than 200 worksites and social systems reaching more than 50,000 participants. It has been implemented at the Centers for Disease Control and Promotion (CDC) and 12 state health departments, and diffused to multiple social systems.

**Theoretical Framework:** TCC is a population-based behavior change program based on the following theories/models: health belief model, diffusion of innovation, social learning theory, and stages of change.

**Objectives:** TCC is intended to address additional behaviors sequentially for a period of 10 years, beginning with physical activity and progressing to fruit and vegetable consumption, dietary fat reduction, and tobacco use with a 10-week incentive and team-based social system behavior change program. TCC evolves into a population-based program as it is diffused to a critical mass of social systems: worksites, schools, churches, and senior centers. It will culminate as a Web and media-based intervention. It is designed to collect data that will assist communities in reaching *Healthy People 2010* objectives.

**Intervention:** Participants were recruited by team captains to reach a self-determined 10-week physical activity point goal. Incentives rewarded participant/team contracting and goal completion.

**Evaluation Measures:** Each social system collects the same data: percent participation, percent goal completion, and preprogram and postprogram stage of change and stage of change movement. The average participation rates have exceeded 50%, goal completion has exceeded 65%, and there has been significant stage of change movement.

**Learning Objectives:** Participants will learn the components of a theory-based behavior change program that can be modified to reach the needs of different age and population groups and how to evaluate a behavior change program that is aligned with *Healthy People 2010* objectives.

Wednesday, November 29, 2000

## **Fit for Life: A Physical Activity Challenge That Results in Behavioral and Environmental Change**

*E. Flynn, M. Cocchetto*

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**Objective:** As national emphasis shifts toward improving the nutritional and physical activity habits of our nation's population, and with chronic disease prevention, risk reduction, and overall health promotion the current trends in health care, the authors will share a successful community and worksite-based physical activity intervention. Fit for Life is a packaged program that promotes chronic disease prevention and risk reduction through increased physical activity levels among participants and by facilitating physical activity opportunities in the greater community. It was designed by the authors and is based on New York State's Walk for Life program. We will share the package and explain how to implement it in a community or worksite. A case will be made for environmental efficacy through data analysis and worksite case studies. Collaborative strategies in partnering with the local media to ensure the success of this project will be presented.

**Learning Objective:** Participants will leave this presentation with a working knowledge of the program and an understanding of its value as an environmental intervention. Participants will be provided with a Fit for Life package that they can then modify for implementation within their own community or worksite.

Wednesday, November 29, 2000

## Development and Early Outcomes of a Chronic Disease Management Program in an African American Community

*S. Nine, C. Lakies, H. Jarrett*

**Objective:** To describe the development and early outcomes of a community-based chronic disease management program for African Americans with diabetes and hypertension.

**Setting:** This program is a model showing how to address a community's need for a healthier lifestyle for those with diabetes and/or hypertension. At the recommendation of the Black Pastors' Association, the first priority was to gain trust. The program established an extraordinary rapport that allowed successful implementation of interventions to promote healthier eating, exercise, and a supportive environment. Program components include exercise prescribed and supervised by an exercise physiologist, meal planning by a registered dietitian, support groups coordinated by lay educators and professional staff, cooking schools demonstrating healthy food preparation, and service coordination by registered nurses. Enrollment is ongoing. Initial data includes blood pressure, weight, hemoglobin A<sub>1C</sub>, lipid profile, body mass index, body fat percentage, and quality of life questionnaire scores. Ongoing data includes monthly blood pressure and weight, quarterly hemoglobin A<sub>1C</sub>, and annual lipid profile, body mass index, body fat percentage, and quality of life scores.

**Result:** Seventy-two clients are enrolled in the program. From initial data to 1 year of participation, the mean parameters for the group have made these changes: hemoglobin A<sub>1C</sub> decreased by 1.2%, systolic blood pressure decreased by 15.8 mm Hg, diastolic blood pressure decreased by 6.84 mm Hg, and total cholesterol decreased by 5.5 mg/dl. In addition, quality of life questionnaire scores improved by 3%.

**Conclusion:** African Americans show improvement in diabetes-related outcomes with preventive measures offered in a community-based structured environment.

**Learning Objective:** Participants will be able to describe strategies for building partnerships needed to develop a community-based chronic disease management program and name four effective community-based interventions aimed at eliminating racial disparities in chronic disease.

Wednesday, November 29, 2000

## Effective Strategies: The Challenges of Reaching Rural Underserved Populations

*D. Almonte, M. Spence, L. Shea*

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**Objective:** To identify practical solutions to address the challenges of working with the rural underserved population.

**Setting:** Many local partnerships with limited resources and goals were established by initial funding of the Community Coalitions for Diabetes Prevention. With new funding available, larger regionally based coalitions with enhanced partnerships were established, which allowed for much needed educational, fiscal, and human resources. The 14-county rural population has benefited from many nontraditional partners with a common interest in diabetes awareness, prevention, education, and self-care. Some of these partners are hospitals, worksites, a parish nurse program, the Agribusiness Association, The Rural Health Network, Cornell Cooperative Extension, and the Strategic Telecommunications Initiative.

**Result:** In the southern tier of New York State, previously established Healthy Living Partnerships have expanded their scope of work with special attention to the rural population of New York State. Challenges and strategies to reach this medically underserved population and establish trust have been identified and are being addressed through the use of mobile health units staffed by community-based organizations. In addition, culturally appropriate and low-literacy materials have been used in prevention messages.

**Conclusion:** This collaborative model is one that can be extrapolated to enhance services for other underserved populations throughout the state.

**Learning Objective:** Participants will be able to identify challenges and come up with effective solutions in working with the rural underserved populations in their communities.

Wednesday, November 29, 2000

## Communicating Across Boundaries: The Asian American Women's Breast and Cervical Cancer Program

*J. Stoll-Hadayia, C. Moon, M. Yang*

### Oral Presentations

**Objective:** To replicate and disseminate a proven cultural competency training model to enhance the responsiveness of breast and cervical cancer (BCC) screening providers to Asian American women using innovative collaborations with state and community-based representatives.

**Setting:** Partners are hosting the intervention throughout California, Georgia, Iowa, Massachusetts, Minnesota, New York, Virginia, and Washington. Partners include health departments from each state and two national cancer organizations.

**Intervention:** Through unique collaborations with state health departments and specially trained community health advocates, the National Asian Women's Health Organization (NAWHO) has implemented cultural competency trainings for BCC screening providers to Asian American women. These trainings have contributed to a replicable training model that is being prepared for dissemination.

**Outcome:** Working with 3 health departments and 8 trained advocates, NAWHO has reached 529 providers to significantly increase their knowledge of and interest in providing culturally competent care to Asian American women. Moreover, the trainings' community-focused implementation process has contributed to systematic improvements in programs' and communities' ability to serve this population.

**Conclusion:** NAWHO's training model is effective in both increasing providers' knowledge of and interest in providing culturally competent services to Asian American women. It also increases programmatic and community capacity to reach this priority population. Successful replication and dissemination are expected.

**Learning Objective:** Participants should be able to describe a culturally competent professional education program for BCC screening providers to Asian American women, describe a unique partnership structure for improving community health, and apply best practices for reaching priority populations.

Wednesday, November 29, 2000

## Outcomes of a Community-Based Replication of the Senior Health Enhancement Program

*E. Phelan, B. Williams, S. Snyder, L. Simmons, E. Wagner, J. LoGerfo*

**Objective:** We previously found in an efficacy trial that a community-based health promotion program prevented functional decline and reduced hospitalizations in chronically ill elderly. We sought to evaluate the effectiveness of a replication.

**Method:** We analyzed data from 103 Health Enhancement Program (HEP) enrollees at one of nine senior centers in western Washington for whom 12-month follow-up information was available. We examined participant characteristics and program impact on health and functional status and health care use.

**Result:** Participants were 72% female, had a mean age of 74 years, and reported 3 chronic health conditions, on average. At follow-up, 84% rated their health the same or better than a year ago. Twenty-seven percent reported hospitalization in the year before enrollment, and 18% were hospitalized while participating in the program ( $P=0.2$ ). The mean number of emergency visits decreased from baseline to follow-up (0.6 visits vs. 0.4,  $P=0.04$ ). Nonsignificant changes were found from baseline to follow-up in the mean number of bed disability days (2.9 days vs. 2.6), physician visits (5.8 visits vs. 5.1), and hospital days (1.5 days vs. 2.2, or 0.9, excluding one outlier). Depression scores improved from baseline to follow-up for participants choosing to address depression (Yesavage Geriatric Depression score 5.1 vs. 3.9,  $P=0.008$ ). Physical activity improved for those who chose to address exercise (Physician-Based Assessment and Counseling for Exercise score 4.0 vs. 4.9,  $P=0.002$ ).

**Conclusion:** Under usual conditions, the HEP reaches seniors at risk for functional decline and has a positive impact on health, although on somewhat different dimensions than in the efficacy trial.

**Learning Objective:** Participants should have an increased understanding of the benefits of a community-based disability prevention program for chronically ill older adults.

Wednesday, November 29, 2000

## Self-Reported Chronic Diseases, Associated Risk-Factors, and Access to Care in a Latino Population in Maricopa County, Arizona

*S. Santana, R. Bernstein, A. Lasee*

**Objective:** To evaluate access to health care, chronic disease burden, and risk factor prevalence in a remote rural immigrant Latino population not previously assessed in Maricopa County, Arizona.

**Setting:** Because of fear of immigration issues, poverty, language isolation, and the remoteness of living areas, this target population is severely underrepresented in census data and is anecdotally reported to have low rates of health care use.

**Methodology:** Face-to-face survey modeled on the 1993 United States Behavioral Risk Factor Surveillance System (BRFSS). A convenience sample was selected from neighborhoods, work centers, and other places where the target population congregates. Selection criteria for participation were adult status, local residence, ethnic self-identification, and lack of acquaintance with the interviewer.

**Result:** The percentage of respondents with a regular source of care was only 29.3%, and only 27% had insurance. Median income and age were lower than for the general population. Prevalence of self-reported diabetes, high cholesterol, and hypertension was higher than reported for the general population (BRFSS). As in other studies, a strong association was found between access to care and reports of chronic disease and between age and chronic disease.

**Conclusion:** The burden of chronic disease and risk factors cannot be reliably assessed while portions of the population lack access to care, may have never been screened, and are unaware of disease status. Thus, the data presented here underestimate the true prevalence of disease in this population and validate the anecdotal information regarding lack of care and high frequency of disease.

Wednesday, November 29, 2000

## Chronic Disease Screening and Prevention Among Women Aged 40 Years and Older Residing at the U.S.-Mexico Border

A. Giuliano, J. Guernsey de Zapien, J. Stephan

**Objective:** To examine the prevalence of cervical and breast abnormalities, and of elevated glucose and cholesterol among women aged  $\geq 40$  years at the U.S.–Mexico border.

**Setting:** The U.S.–Mexico border consists of 23 U.S. counties and 39 Mexican municipalities that have a common economic base and health profile distinct from their corresponding nations. This region has a higher burden of chronic diseases. Unfortunately, most information at the U.S.–Mexico border is from populations attending clinics. These data may underestimate the true prevalence of disease because those who are most at risk may not participate in preventive care.

**Method:** A cross-sectional survey of randomly selected households was conducted from 1999 to 2000 in the contiguous border communities of Douglas, Arizona, and Agua Prieta, Sonora, Mexico. Women aged  $\geq 40$  years completed an interviewer-administered questionnaire that addressed barriers to chronic disease screening. Uninsured participants were invited to a free chronic disease screening clinic that included a Papanicolaou (Pap) test, test for human papillomavirus (HPV), clinical breast exam (CBE), mammogram, glucose testing, and cholesterol testing.

**Result:** Preliminary results from 275 participants demonstrate a significant difference in rates of abnormal cytology, abnormal CBE, and mean fasting blood glucose levels. In addition, we observed an HPV prevalence of 13.2%, marginally greater ( $P=0.07$ ) than previously observed (9.0%) from our study of women recruited from health clinics.

**Conclusion:** We observed a high prevalence of HPV and fasting blood glucose levels, which indicate elevated risk for both diabetes and cervical cancer.

**Learning Objective:** Understand the prevalence of chronic diseases among women at the U.S.–Mexico border.

Wednesday, November 29, 2000

## Differences in “Healthy Days” Among U.S.- and Foreign-Born Hispanic Kansans

*D. Curtis, C. Miller*

**Objective:** To examine differences in health-related quality of life (HRQOL) among U.S.-born (USBH) and foreign-born Hispanics (FBH) in Kansas using HRQOL surveillance measures.

**Setting:** Eliminating disparities and increasing the quality and years of healthy life are major goals of *Healthy People 2010*. Four measures in the Behavioral Risk Factor Surveillance System (BRFSS) Survey help states track HRQOL. However, few data exist describing differences in HRQOL among Hispanics.

**Method:** In 1996, a BRFSS-like survey was conducted among 800 Hispanic Kansans using a Hispanic surname list. Standard BRFSS questions as well as items on country of birth, length of time living in the United States, and English fluency were also included. To examine HRQOL, a “Healthy days” index was created by combining two questions asking the number of poor physical and mental health days during the past month.

**Result:** Thirty-five percent of FBH were aged 25-34 years vs. 19% of USBH. Sixty-one percent of FBH had less than a high school education vs. 20% of USBH. Thirty-two percent of FBH had a household income of < \$20,000 vs. 17% of U.S.-born Hispanics. Thirty percent of USBH reported 15 or more “poor health days” vs. 19% of FBH, a difference that remained significant after adjusting for age, education, income and employment status.

**Conclusion:** Although FBH Kansans had some demographic risk factors (lower income and education) for poor HRQOL, their self-reported HRQOL was substantially better than the USBH, suggesting that other factors, including acculturation, need to be explored.

**Learning Objective:** Participants should be able to describe the use of and factors associated with HRQOL surveillance measures among Hispanic populations.

Wednesday, November 29, 2000

## Diabetes Surveillance of Adult Puerto Ricans in New York City

*T. Melnik, A. Hosler, E. Tierney, T. Duffy*

**Objective:** To assess prevalence and risk characteristics associated with diabetes in an urban adult Puerto Rican population.

**Setting:** Eliminating disparities among ethnic minorities requires an understanding of the prevalence and risk characteristics associated with diabetes. The development of innovative and cost-effective surveillance methods is needed to capture information on high-risk groups defined by ethnicity and geography.

**Method:** A random-digit-dialed (RDD) telephone survey modeled after the Behavioral Risk Factor Surveillance System (BRFSS) was conducted among adult New York City Puerto Ricans. The stratified design combined a list-assisted sample of people with Hispanic surnames with a disproportionately stratified RDD selection of Hispanic households using census data to weight the telephone exchanges by the estimated proportion of Hispanic adults. The questionnaire in English and Spanish languages screened for Puerto Rican ethnicity. Prevalence, risk characteristics associated with diabetes, and diabetes care were assessed.

**Result:** Data collection began July 1999 and continued through June 2000. Survey efficiencies are exceeding expectations for an anticipated final sample of approximately 1,300 respondents. Findings will be presented showing the prevalence of diabetes, risk characteristics, and diabetes care compared with findings from previous BRFSS surveys.

**Conclusion:** This program demonstrates the feasibility of using innovative RDD approaches for diabetes surveillance of populations defined by ethnicity and geography. The information can be used to assess disease.

**Learning Objective:** Participants will learn the application of innovative telephone surveillance methods to obtain information useful for program planning and evaluation to reduce chronic disease disparities in minority populations.

Wednesday, November 29, 2000

## State-based Calculation of Years of Healthy Life Using Life Table Technique

*M. Wu, B. Bartoli, N. Scruggs*

**Objective:** To assess prevalence and risk characteristics associated with diabetes in an urban adult Puerto Rican population.

**Setting:** Eliminating disparities among ethnic minorities requires an understanding of the prevalence and risk characteristics associated with diabetes. The development of innovative and cost-effective surveillance methods is needed to capture information on high-risk groups defined by ethnicity and geography.

**Method:** A random-digit-dialed (RDD) telephone survey modeled after the Behavioral Risk Factor Surveillance System (BRFSS) was conducted among adult New York City Puerto Ricans. The stratified design combined a list-assisted sample of people with Hispanic surnames with a disproportionately stratified RDD selection of Hispanic households using census data to weight the telephone exchanges by the estimated proportion of Hispanic adults. The questionnaire in English and Spanish languages screened for Puerto Rican ethnicity. Prevalence, risk characteristics associated with diabetes, and diabetes care were assessed.

**Result:** Data collection began July 1999 and continued through June 2000. Survey efficiencies are exceeding expectations for an anticipated final sample of approximately 1,300 respondents. Findings will be presented showing the prevalence of diabetes, risk characteristics, and diabetes care compared with findings from previous BRFSS surveys.

**Conclusion:** This program demonstrates the feasibility of using innovative RDD approaches for diabetes surveillance of populations defined by ethnicity and geography. The information can be used to assess disease burden and to plan targeted interventions to reduce disparities among minorities.

**Learning Objective:** Participants will learn the application of innovative telephone surveillance methods to obtain information useful for program planning and evaluation to reduce chronic disease disparities in minority populations.

Wednesday, November 29, 2000

**Cancer Risk Reduction From Ultraviolet-B Radiation and Vitamin D**W. Grant

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**Setting:** *The Atlas of Cancer Mortality in the United States, 1950–1994* (National Institutes of Health, National Cancer Institute, 1999) shows that for many cancers, mortality rates in the Northeast are generally double what they are in the Southwest. Although most of these cancer types have dietary risk factors, differences in diet in the four quadrants of the United States can explain only a small portion of the differences. Several papers during the past decade showed that available sunlight appears to provide a better explanation of the geographical distribution of mortality rates for five cancer types. Also, vitamin D has been shown to reduce the risk of a number of cancers. For this study, several sets of ground- and space-based surface ultraviolet (UV) exposure data were compared statistically with the mortality data. High inverse correlations with UV radiation were found for 10 cancers of the digestive and reproductive organs: bladder, breast, colon, esophagus, kidney, prostate, ovary, rectum, stomach, and uterus. Urban areas had about 50% higher mortality rates than nearby rural areas. Wintertime UV exposure seems to be more important than summertime exposure. It is estimated that during 1970–1994, 50,000 excess deaths annually could be attributed to insufficient UV exposure or vitamin D, compared with 6,600 deaths annually caused by melanoma and other skin cancer. It is suggested that the recommended amount of supplemental vitamin D be increased as a way to reduce the risk of cancer.

Wednesday, November 29, 2000

## Does the Stroke Belt Have a Buckle? A Multistate Analysis of Medicare Stroke Hospitalization Data

*L. Henderson, A. Schenck, R.J. Simpson*

**Setting:** Stroke mortality rates in the United States are highest in the southeast, resulting in an area termed the stroke belt. Recent studies suggest stroke mortality rates are highest in the easternmost portions of Georgia, North Carolina, and South Carolina, an area that has been named the stroke “buckle.” We examined geographic differences for stroke hospitalizations to investigate the “buckle” phenomenon.

**Method:** Data were obtained from Medicare inpatient claims and enrollment files. Medicare beneficiaries aged 65 years and older, hospitalized in Georgia, North Carolina, and South Carolina to an acute care facility between January 1, 1996, and December 31, 1998, with a primary discharge diagnosis of stroke were included. Risk ratios (RR) and 95% confidence intervals (CIs) were calculated to examine differences in rates among geographic and demographic groups.

**Result:** Age-adjusted stroke discharge rates per 1,000 enrollees decreased (23.9 in 1996 to 22.9 in 1998). Discharge rates per 1,000 enrollees increased with age (6.3 for enrollees aged 65–74 years, 14.5 for enrollees aged 75–84 years, and 25.8 for enrollees aged ≥85 years), were higher among African Americans (26.2) than among whites (21.6), and were higher among males (24.0) than females (21.5). A comparison of regions by age-group found discharge rates were higher in the buckle region compared with the nonbuckle region [RR (CI): 1.18 (1.16–1.20) for persons aged 65–74 years, 1.17 (1.15–1.19) for persons aged 75–84 years, and 1.14 (1.11–1.17) for persons aged ≥85 years].

**Conclusion:** Geographic analysis showed that age-adjusted discharge rates were higher in the buckle region than in the nonbuckle region regardless of age, race, or sex. Although the buckle is not uniform across all counties, beneficiaries living in the eastern regions of these three states experience higher stroke hospitalization rates.

**Learning Objective:** Participants will be able to identify demographic and geographic groups who have high stroke hospitalization rates and recognize the value of Medicare claims data in conducting research.

Wednesday, November 29, 2000

## Health Benchmarks for Counties

N. Kanarek, G. Hsieh

**Objective:** To explore county-specific progress toward meeting *Healthy People 2010* objectives.

**Setting:** In July 2000, the Health Resources Health Benchmarks for Counties and Services Administration released the CHSI Reports for 3,082 U.S. counties. A broad spectrum of indicators from nationally available sources was included. These reports provide a baseline for the decade of the 1980s, a recent history of trend during a time of goal setting, and information for small areas across the United States.

**Method:** Rates, number of events, population and subpopulation estimates were obtained or calculated using the same sources or methods for all counties. In addition, peer counties were determined using poverty level, density, population size, and age distribution. Users of the CHSI Reports can compare their county with others, the 1997 U.S. level, or national *Healthy People 2010* targets.

**Result:** County status vis-à-vis various target levels is examined using selected death objectives to illustrate the variability across mortality rates. The following pertain to mortality:

- Some counties' mortality indicators did not begin improvement during the past decade (1989–1998).
- For those with a positive trend, some have bettered their peers, the nation, or the *Healthy People 2010* targets.
- Another, more appropriate target must be developed for some counties because health improvement has surpassed all example targets.

**Conclusion:** Incremental health improvement metered by a “goal” to be reached in a specified amount of time is the basis for *Healthy People 2010* and local health improvement strategies. Just how ready and how far county indicators are from usual targets vary by counties and indicators.

**Learning Objective:** Participants will be able to describe existing county momentum for health improvement and appropriate targets available bench marking.

Wednesday, November 29, 2000

## What Types of Counties Contribute the Majority of U.S. Risk in Excess of *HP 2010* Mortality Targets?

N. Kanarek, G. Hsieh

**Setting:** The CHSI project assembled various indicators of community health and released a CHSI Report for every U.S. county last July (2000). Counties were characterized by demographics. Selected Healthy People 2010 mortality objectives were reported.

**Method:** Counties were compared with their peers. Peers were designated using several variables that have historically been thought responsible for poor health—poverty level, age distribution, and population size and density. Risk in excess of U.S. Healthy People 2010 targets was calculated.

**Result:** Total excess risk percentage was calculated in several mortality rates. The percentage of mortality in excess of Healthy People 2010 varies by disease-specific cause of death. Excess risk was found in counties of large and small size, high and low density, and those having large subpopulations of young and old people.

**Conclusion:** Excess risk quantified the types of local areas in need of programs and planning to reduce the gap between current (1994–1998) and Year 2010 target rates. Furthermore, findings suggest unlikely coalitions among disparate counties.

**Learning Objective:** Participants will understand the utility of excess risk percentage for targeting technical assistance to specific counties trying to reach Healthy People 2010 objectives.

Wednesday, November 29, 2000

## Development of an Asthma Management Program for Latino Children in Houston Using Intervention Mapping

M. Fernandez, K. Bartholomew, M. Sockrider, D. Czyzewski, S. Abramson, A. Linares, A. Lopez, G. Parcel

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**Objective:** The Families and Schools Together for Asthma Management (FAMILIAS) project is a 5-year community-based study funded through the Centers for Disease Control and Prevention's Prevention Research Center Program that seeks to address factors influencing the identification and management of asthma among Hispanic children and families.

**Setting:** The planning team used *Intervention Mapping*, a process for developing theory and evidence-based health promotion interventions to delineate program objectives, methods, and strategies, and describe program implementation. This planning model helped assure that the intervention would address the specific factors influencing asthma management among Hispanic children and families. During the needs assessment phase, we identified salient factors influencing asthma identification (diagnosis) and self-management through various qualitative methods including focus groups, one-to-one interviews, clinical observation with parents, and interviews with health care providers. Additionally, quantitative data obtained through two previously funded asthma projects was used to identify factors related to asthma self-management among Hispanic children.

**Outcome:** We identified 21 asthma management behaviors for parents, 17 for children, and 9 for physicians. We also described 13 environmental conditions conducive to asthma management. Using data obtained from prior research, results from the qualitative inquiry, and the project Hispanic Community Advisory Board (HCAB) recommendations, we were able to describe these behaviors and their determinants within their cultural context. This process then allowed us to match theoretical change methods with hypothesized determinants and create a program plan consistent with the realities of the target population. The process of Intervention Mapping will be described as it was applied to the development of the FAMILIAS program.

**Learning Objective:** Participants will be able to describe key steps used in the health promotion planning model Intervention Mapping and methods for effectively using qualitative and quantitative data and community input in the development of a theory-based health promotion intervention.

Wednesday, November 29, 2000

## Evaluation of the Diffusion of the Child and Adolescent Trial for Cardiovascular Health (CATCH) Program in Texas

*N. Murray, S. Kelder, C. Barroso, D. Hoelscher, P. Cribb*

**Objective:** To evaluate the dissemination of a successful coordinated school health program in Texas.

**Setting:** Texas elementary schools.

**Method:** School-based interventions promise efficient means of promoting the health of large numbers of children, but diffusion of programs has been inconsistent and slow. The Coordinated Approach to Child Health (CATCH) is a school-based nutrition and physical activity program designed for prevention of chronic diseases, such as cardiovascular disease and diabetes. To promote implementation of CATCH in Texas, a diffusion program was developed from diffusion theory, previous research in school health program diffusion, and empirical data from the target population.

**Outcome:** In 12 months of concentrated intervention in Texas education service center regions, more than 225 schools adopted the CATCH curriculum. Personnel from more than 200 schools attended CATCH training sessions. To evaluate the diffusion of CATCH, in spring 2000, school educators trained from October 1998 to October 1999 were surveyed about the adoption of CATCH at their respective schools. Of 268 eligible participants, 157 educators returned completed surveys (a 58.6% response rate). They reported an average of 7 hours of CATCH training. Use of CATCH dramatically increased from 49% in 1998–1999 to 94% in 1999–2000. Six to 18 months after training, approximately 88% had CATCH materials at their schools, 86% were using the materials, and most reported the intention to use them in the next school year.

**Conclusion:** Participants reported that the CATCH curriculum was easy to prepare, easy to use, and teacher-friendly.

**Learning Objective:** Participants will be able to describe the diffusion of CATCH using a theoretically derived diffusion model, judge the success of the diffusion of CATCH, and identify elements that contribute to successful implementation.

Wednesday, November 29, 2000

## Measurement of Group Collective Efficacy: Instrument Development and Pilot Testing

*D. Eaton, M. Forthofer, R. McDermott, C. Bryant, K. Brown, D. Landis*

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**Objective:** To describe development of a task-specific measure of group collective efficacy for use in evaluating community-based disease prevention and health promotion initiatives.

**Setting:** Although sometimes confused with other constructs, such as social capital, collective efficacy is defined as a group's competency, or perceived ability to successfully perform a task. Definition of the components of the collective efficacy domain for this instrument comes from work by Zaccaro et al. (1995). Conceptual components of collective efficacy include group members' perceptions of shared beliefs, confidence in ability to coordinate efforts, consideration of resources, and group persistence. Collective efficacy should relate to individual actions within a group and overall group outcomes.

**Method:** Development of the Group Collective Efficacy Instrument (GCEI) is ongoing and involves three phases. First, items were developed to match the four key conceptual components. Second, experts reviewed items for appropriateness and clarity. Third, the GCEI was pilot tested. Preliminary pilot test data guided instrument revisions. A third round of pilot testing is under way.

**Result:** Items performance was evaluated via mean, variance, item-total correlation, and internal consistency statistics. Additional pilot testing will assess further the instrument's psychometric properties and validity.

**Conclusion:** Collective efficacy may be valuable for understanding and explaining group outcomes, such as effectiveness in disease prevention and health promotion initiatives. The GCEI may be useful for assessing group collective efficacy.

**Learning Objective:** Participants will be able to describe the instrument development process, define the collective efficacy construct, and explain the utility of collective efficacy in evaluating community partnerships.

Wednesday, November 29, 2000

## Cost-Effectiveness of Case Management as a Component of Primary Care for Low-Income Chronically Ill Persons

*M.J. Baisch, E. Hildebrandt, J.B. Calvin, S.P. Lundeen*

**Purpose of the Program:** The purpose of this study is to analyze the process, time involved, staff costs, and outcomes of case management and other interventions needed by a population enrolled in the county medical program for very low-income clients over the past 2 years.

**Background:** Although case management is not usually a reimbursed service in primary care, the amount of coordination for services for the uninsured and underinsured is increasing. This process is an expensive, yet often hidden, component of primary care and has an impact on primary care program planning and health care reimbursement policies. The University of Wisconsin-Milwaukee (UWM) Silver Spring Community Nursing Center is a primary health care center located in the largest housing development in the state of Wisconsin. For more than a decade, interventions provided by an interdisciplinary team of providers have been systematically collected and coded using the OMAHA system, a method of documenting a broader array of services than those in CPT coding schemes. The data are managed using DataPrompt, a relational computerized database.

**Methods:** Client demographic descriptors and health problems will be compared with four intervention categories: health teaching, guidance, and counseling; treatments and procedures; case management; and surveillance to further describe use for various chronic illnesses.

**Conclusion:** The implications of the health care use and costs of the increasing numbers of uninsured and their relationship to health care reimbursement models will be discussed.

**Learning Objectives:** Participants will be able 1) to identify the cost-effectiveness of the case management of a population of very low-income, chronically ill clients in a primary care setting, and 2) to discuss the program planning and policy implications of case management use patterns.

Wednesday, November 29, 2000

## Health Risk Reduction: Evaluating Client Outcomes in a Rural Clinic Population

*J. Bowden*

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**Objective:** To evaluate client outcomes of health risk reduction in a rural population.

**Setting:** The Oregon Health Sciences University School of Nursing operates a nurse practitioner clinic in Union, Oregon, to meet the primary health care needs of a rural, underserved population in northeastern Oregon.

**Intervention:** A quasi-experimental design, with individuals serving as their own controls, is being used to examine reduction in five specific health risk behaviors: tobacco use, obesity and/or poor diet, physical inactivity, emotional stress, and lack of knowledge and/or ability to manage chronic illness — following the independent variable of primary health care.

**Outcome:** This will serve as a model for evaluating community-based primary health care for rural, underserved populations and contribute to the research and action needed for effective interventions and best practices.

**Conclusion:** An overall health-risk assessment tool was developed for use in a rural clinic, capturing five health risk behaviors. Five specific questionnaires were developed to measure each of the risk areas, before and after interventions. Results from the first year of this three year study demonstrate strengths and challenges of motivating individual behavior change in a small, rural primary care clinic.

**Learning Objective:** Participants will be able to identify five health risk behaviors that act as barriers to long and healthy lives, and share research methods and clinic protocols for health behavior change and chronic disease control in a primary care practice.

Wednesday, November 29, 2000

## Abnormal Screening Adherence Follow-up Program

*K. Ell, D. Padgett, B. Vourlekis*

**Objective:** To improve adherence to abnormal breast and cervical screening diagnostic follow-up and initiation of treatment and subsequent rescreening among high-risk, low-income, older, ethnic minority women.

**Setting:** A subset of high-risk women has poorer rates of optimal follow-up of abnormal breast and cervical screening. These women require more intensive individualized case management services.

**Method:** The Abnormal Screening Adherence Follow-up Program (ASAFP) adapts effective interventions for culturally diverse women and for use in different service systems. ASAFP is structured telephone-administered multifaceted case management that includes individualized assessment of adherence risk and barriers; health education; psychosocial counseling to enhance women's self-management skills; and health system and community resource navigation. Research and Development funding from the Centers for Disease Control and Prevention's National Breast and Cervical Cancer Early Detection Program was used to implement and evaluate ASAFP in New York City and Los Angeles.

**Result:** Between July 1998 and May 2000, 756 women (542 Hispanics; 111 African Americans; and 87 of other background) received ASAFP services. Adherence rates for diagnostic resolution were significantly higher than baseline in New York City (92% compared with 87%), and for enrolled vs. nonenrolled women in Los Angeles (95% vs. 71%). Rates of adherence higher than 95% were found for all levels of assessed risk: low (requiring no case management services after initial educational intervention), moderate (requiring systems navigation), and high (requiring intensive services).

**Conclusion:** Evaluation indicates that case management services are effective for high-risk women and can be implemented in different geographic regions and service systems. Women needing more intensive services can be identified in a baseline scripted interactive telephone intervention, and service intensity can be matched to individual need.

**Learning Objective:** Participants should be able to identify best practices from the ASAFP model and develop strategies to adapt and apply these in their local service systems.

Wednesday, November 29, 2000

## WISEWOMAN

*K. Foell, P. Cannon, C. Schaab, C. Stockmyer*

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**Objective:** To describe activities and characteristics that make a difference between a successful and a struggling partnership among states and local agencies. Comparison of data may predict which agencies and sites will do better than others.

**Setting:** Well-Integrated Screening for Women Across the Nation (WISEWOMAN) federally funded project states, territories, and tribal organizations.

**Intervention:** State, territories, and tribal organizations may apply for federal funding through the WISEWOMAN Project. Using the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) framework, WISEWOMAN seizes the opportunity to address cardiovascular risk factors such as elevated cholesterol, high blood pressure, obesity, sedentary lifestyle, and smoking in the target population. The target population is low-income, uninsured women aged 40-64 years who may participate in the National Breast and Cervical Cancer Early Detection Program. Partnerships with local health care providers are germane to reducing the risk of illness and death from heart disease in this target population. Some sites and agencies are very successful with partnering, and some are struggling to meet project goals. WISEWOMAN sites have identified activities and characteristics that may predict or explain the success of their partnerships.

**Outcome:** Panelists will describe creative ways to obtain and maintain administrative buy-in, physician and health care providers support, community interest, program staff endorsement funding approval, and target population participation.

**Conclusion:** Panelists will identify some lessons learned about creative partnering for the WISEWOMAN Project. Application of these lessons might help other states, territories, and tribal organizations as they develop and implement chronic disease screening programs. Panelists will suggest future direction for partnership based on their WISEWOMAN experiences.

**Learning Objective:** Participants will be able to identify at least three successful strategies or characteristics that will enable them to improve their partnerships and increase the likelihood of reaching their program goals.

Thursday, November 30, 2000

## Activities and Future Directions in Older Adult Health at the Centers for Disease Control and Prevention

*C. Hennessy, D. Buchner, J. Stevens, A. Shefer, J. Crews*

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**Purpose:** To provide an overview of the objectives for health promotion and disability prevention activities with older adults and of the Centers for Disease Control and Prevention's role, partnerships, and range of current activities and anticipated future directions in geriatric health and health care.

**Learning Objectives:** Participants should be better able to characterize the public health approach to older adult health and identify related surveillance, research, and program activities conducted or supported by the Centers for Disease Control and Prevention.

Thursday, November 30, 1999

## **Ats'íís Yá' át'éehgo Áhool'á—Healthy Path: A Nutrition and Physical Activity Program for Navajo Elders**

*J. Thompson, L. Cunningham-Sabo, H. Haskie, S. Davis*

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**Objective:** To work in partnership to improve the health of elderly individuals through increased physical activity and nutrition education opportunities.

**Setting:** A partnership was formed involving the University of New Mexico Prevention Research Center, the Navajo Area Agency on Aging, the Crownpoint (IHS) Healthcare Facility – Community and Preventive Health Division, the Navajo Nation Council on Aging, and the Eastern Navajo Health Board. These groups conducted an assessment of needs and strengths of nutrition and physical activity opportunities for elders.

**Intervention:** A partnership model of community-based training research was used to design, implement, and evaluate culturally relevant, applicable, and sustainable physical activity and nutrition education programs for Navajo elders.

**Outcome:** Instructional modules have been developed, implemented, and evaluated. Materials include the Healthy Path Food Guide Pyramid, Physical Activity Box, and an informational brochure to share with tribal government, state, and federal agencies. Research grant proposals were written and submitted by the partnership, and funds have been secured to purchase materials related to training and program implementation.

**Conclusion:** Effective community partnering allows communities and researchers to enhance community strengths and develop culturally sensitive and appropriate health programs.

**Learning Objective:** Participants will learn about a promising community partnership which is developing community-based health programs with limited financial resources, and adapting available nutrition and physical activity information for minority communities. Program materials will be shared.

Thursday, November 30, 2000

## Collaborative Response for Community Health Improvement

*K. Cernak*

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**Objective:** A collaborative framework of health systems and community working together to improve community health.

**Setting:** Seven of the Seattle area's major hospitals, the Seattle-King County Department of Public Health, and Aetna, in partnership with more than 50 community organizations, have created a new collaborative standard of community health care called Partners.

**Intervention:** Beginning in 1997, these health partners have collaboratively committed to initiatives in the early recognition and referral for domestic and workplace violence, the early detection of breast cancer, reducing adolescent health risk, pregnancy risk reduction, and preventing violence among children and young people.

**Outcome:** Include increased health provider referral for domestic violence and child abuse, reduced victim shelter turnaways, increased early detection of breast cancer, reduced smoking during pregnancy, and increased resiliency to youth violence.

**Conclusion:** Partners is a replicable model for hospitals, public health, health plans, and community to form a high-leverage collaborative to improve community health. Partners has been presented as a model to the World Health Organization's associated health systems throughout Europe and has received the top national awards for community collaboration including the American Hospital Association's NOVA award presented in Washington, D.C. Partners initiatives are now being replicated in communities across the United States.

**Learning Objective:** Participants will have a greater understanding of creating new boundaries of collaboration to make the difference in their community and will be able to use Partners as an outcome-driven working template for community health.

Thursday, November 30, 2000

## **Creative Partnerships for Health Promotion in African American Faith Communities**

*J. Coleman, S. Dean*

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**Objective:** To build the capacity of African American churches to promote positive health practices through partnerships with public health agencies and community-based organizations.

**Setting:** Public health educators, community-based volunteers, and African American faith communities in rural South Carolina collaborated on the “Get Motivated! Get Educated!” project, which employed outreach activities to teach behavior modification strategies and skills-building techniques for prevention and management of diabetes, hypertension, and coronary heart disease.

**Intervention:** Behavior modification strategies included risk assessment and health education on nutrition and physical activity. Public health department health education staff partnered with community volunteers to conduct health risk assessments, demonstrate preparation of healthy menus and meals, and encourage regular physical activity.

**Outcome:** More than 200 people completed scheduled activities and demonstrated an average of 60% gain in knowledge of risk factors and behavior modification strategies for diabetes, hypertension, and coronary heart disease.

**Conclusion:** Disparities in health outcomes for African Americans can be reduced through creative partnerships that mobilize faith communities and maximize the connection between faith and health. Community volunteers who participate with members of faith communities are effective both at communicating meaningful health messages and in assisting people in building skills to promote health.

**Learning Objective:** Participants will be able to identify strategies for engaging partners for health promotion activities and discuss methods for mobilizing community volunteers in regard to chronic disease prevention.

Thursday, November 30, 2000

## Chronic Disease Program Integration Plans in New York State

*G. Chmielenski, M. Plouffe, M. Cocchetto*

**Objective:** In New York State (NYS), as in many states in the northeast, chronic diseases such as heart disease, cancer, and lung diseases combined kill at a rate greater than 600 yearly. In its enthusiasm to curb the morbidity and mortality rates from such diseases, NYS has provided a variety of small competitive grants to local counties to address the reduction of risk factors for each of the diseases. Some of the county contractors, through their own initiative, have combined the staff and resources of several grants to greatly improve their ability to project chronic disease prevention messages in a cost-effective way.

**Method:** In November 1997, a variety of contractors representing NYS's Breast and Cervical Cancer Early Detection, Healthy Heart, Tobacco, Diabetes, and Injury Control programs were brought together to discuss program integration. Individual programs, though many had come from the same communities, had separate program staff and inadequate budgets. Largely, program staff had knowledge of their program requirements but not of the goals and requirements of the other categorical programs that may have been housed within their own communities. Sadly, even within some county agencies having multiple grants, staff knew nothing of the activities of other grants within their own agency. During that first meeting, each of the separate program goals and objectives were shared to determine that there were multiple opportunities to address common risk factors, common behavioral change strategies, and common environmental change initiatives among all of the programs.

**Result:** Open dialogue among multiple community programs has resulted in the development of several "Healthy Living Partnerships (HLPs)," where funding opportunities from the New York State Department of Health, sometimes combined with funds from the Centers for Disease Control and Prevention (CDC), have been pursued in a coordinated manner in a variety of communities. In the HLPs, staffing, program promotion, advertising, and event planning, previously done independently, are done collaboratively. Program reporting requirements have been combined and are met by appropriately trained people. Most importantly, chronic disease prevention has been embraced into the mainstream core of many local public health units with the same importance as communicable disease and environmental health.

**Conclusion:** Though very limited amounts of chronic disease funding may come to communities in a discordant way, communities need not choose to manage the programs in a fragmented manner. The greater the desire to address programming for chronic diseases in the same way as other public health emergencies, the more effective these programs will become.

**Learning Objective:** Participants should be familiar with a variety of chronic disease programs that are funded by NYS, or jointly with CDC, and be able to describe several strategies for working collaboratively to staff and plan them with the limited resources available.

Thursday, November 30, 2000

## Environmental Tobacco Smoke in Olmsted County, Minnesota: Sites of Exposure and Attitudes of the Population

*T. Kottke, R. Thomas, R. Hoffman*

**Objective:** To determine the exposure of adults in Olmsted County, Minnesota, to environmental tobacco smoke and their attitudes about exposure in restaurants, bars, and nightclubs.

**Setting:** Random population survey.

**Method:** Adults in Olmsted County, Minnesota, (N=1,224) participating in a random-digit-dialed telephone survey.

**Result:** For the 57% (95% confidence interval [CI] = 54% to 60%) of the adult population that is exposed to environmental tobacco smoke, the most frequent sites of exposure are restaurants (44%; 95% CI = 41% to 48%), work (21%; 95% CI = 18% to 24%) and bars (19%; 95% CI = 16% to 21%). Most respondents (72% [95% CI = 69% to 74%]) say they would select a smoke-free restaurant over one where smoking is permitted, and 70% (95% CI = 67% to 72%) say that they would select a smoke-free bar over one where smoking is permitted. By a ratio of nearly two to one, respondents say that they would be more likely, rather than less likely, to dine out or visit bars more often if all restaurants and bars were smoke-free.

**Conclusion:** Smoke-free restaurants, bars, and nightclubs appear to be a wise business decision that promotes the health of employees and customers.

**Learning Objective:** To understand the most common sites of environmental tobacco smoke for the general population and consumer preferences regarding smoke-free restaurants and bars.

Thursday, November 30, 2000

## Involving Community Members in Creating an Environment That Promotes Physical Activity

*E. Thompson, C. Crump, J. Emery, J. Martin, D. Madding*

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**Objective:** To engage community members in the process of changing policy and physical environments that have an impact on chronic disease.

**Setting:** A collaboration of the Henderson County Partnership for Health, the Henderson County Department of Public Health, and the North Carolina Cardiovascular Health (CVH) Program trained community volunteers in bicycle and pedestrian suitability assessment and advocacy methods (Emery et al). Volunteers assessed the roads and sidewalks to determine safe and unsafe areas and mapped assessment results using a geographic information system (GIS).

**Intervention:** The Henderson County CVH Program facilitated the assessment and advocacy process. Volunteers collected data, prioritized needs, and advocated for sidewalks and bike paths. CVH Program staff partnered with the County GIS Coordinator to produce maps of results. Advocacy teams requested local municipalities use the results in Land Use and Transportation Plans.

**Outcome:** Assessment results were used by Public Works to prioritize sidewalk improvements and identify new sidewalks. Mapped data were also used to prioritize needs within the MPO Transportation Improvement Plan and to secure funds through the TEA-21 program.

**Conclusion:** The Bicycle/Pedestrian Suitability Assessment process is an effective way to engage community members in creating policy and environmental change, increasing their awareness of the link between those improvements and chronic disease prevention.

**Learning Objective:** Participants will learn the potential role for citizens in increasing bicycle and pedestrian opportunities within a community.

Thursday, November 30, 2000

## The Shade Pilot Project: Planting Skin Cancer Prevention

*C. Klein, M. Straight*

**Objective:** To raise awareness about skin cancer prevention by planting shade trees that will protect future generations from the sun.

**Setting:** The Shade Project is a collaboration among a wide variety of organizations, including the North Carolina Advisory Committee on Cancer Coordination and Control, the American Cancer Society, the Alice Aycock Poe Center for Health Education, the North Carolina Division of Forest Resources, the North Carolina Department of Corrections, Lowe's Home Improvement Warehouse, North Carolina State University's Recreational Resources, North Carolina Childcare Health and Safety Resource Center. For this pilot, planting partnerships were established with community organizations in two counties, including schools, childcare facilities, parks, and civic organizations.

**Intervention:** Community organizations were offered 10 free Willow Oak seedlings if they would host a planting event highlighting the risk of skin cancer and ways to protect oneself from the sun. They were given a resource packet with ideas and materials for activities related to skin cancer prevention. Advertisements were placed in local newspapers announcing the planting events and highlighting the skin cancer prevention educational message.

**Outcome:** Twenty organizations participated, 1,200 people attended events, and 179 tree seedlings were planted. A few organizations hosted large-scale events, attracting public figures and media attention. Schools had the highest participation rate and were the most likely to sponsor events reaching large numbers of people. The resource packet was well received and widely used.

**Conclusion:** The seedling giveaway and resource packet appear to be effective tools for promoting community-based programs to raise awareness about skin cancer prevention. Schools appear to be the best partners for sponsoring these planting events.

**Learning Objective:** Participants will learn about a novel approach to raising awareness about skin cancer prevention.

Thursday, November 30, 2000

## Policies and Physical Environments Promoting Nutrition and Physical Activity at Urban Churches

*J. Mayer, S. West, K. Jupka, R. Housemann, D. Orenstein*

**Objective:** To assess policies and physical environments that promote nutrition and physical activity at a sample of churches in St. Louis, Missouri.

**Setting:** Church policies and environments can contribute to healthy community norms as well as provide cues-to-action for healthy behavior. Although information on policies and physical environments at worksites, restaurants, retail food stores, and other settings have become commonplace, similar information on churches has been sparse.

**Method:** For 24 St. Louis zip codes, Internet-based Yellow Pages were employed to identify the population of churches. A 5-page survey was mailed to all identified churches in May 2000. Following two additional mailings, current sample size includes 162 churches, although follow-up efforts continue.

**Result:** Average congregation size was 400 with 23% of members aged less than 35 years and 11% with incomes below poverty. Seventeen percent of the churches offered nutrition education classes; 21%, exercise classes; and 43% sponsored sports teams. Sixty-five percent included nutrition or physical activity messages in sermons, and 69% in bulletins. Although a majority of churches did not have food or beverage vending machines, of those that did, 19% included low-fat snack options and 18%, water or 100%, juice. Ten percent reported church policies requiring that healthy foods be served at church functions. Multivariate analyses indicated that the healthfulness of the environments varied with church size and age, and with congregation member characteristics. For example, larger churches were more likely to sponsor physical activity programs and organize sports teams.

**Conclusion:** Although many urban churches possess environments supportive of healthy behavior, opportunities to strengthen these environments are still apparent.

**Learning Objective:** At the conclusion of this presentation, participants should be able to identify features of the physical and policy environments at churches that may promote healthy eating and physical activity.

Thursday, November 30, 2000

## Impact of Diabetes on Changes in Cardiovascular Disease Hospitalizations, South Carolina, 1986–1998

Y. Huang, B. Paul, D. Zheng, M. Wu, J. Colwell

**Objective:** To examine impact of diabetes on changes in cardiovascular disease (CVD) hospitalizations in South Carolina from 1986 to 1998.

**Setting:** CVD remains a leading cause of death and major disease among hospitalized patients. Diabetes is an important risk factor of CVD, and its prevalence has remained high.

**Method:** Data were hospital discharges in South Carolina from 1986 to 1998. CVD was based on primary diagnosis and classified as ischemic heart disease (IHD), stroke, and other CVD. Rates of people with diabetes were compared with those of people without diabetes. Number of people with diabetes was estimated on the basis of data from the Behavioral Risk Factor Surveillance System (BRFSS).

**Result:** Of 5,856,518 patients discharged, 885,863 (15%) had CVD. About 23% of discharged CVD patients had diabetes. Rates of CVD discharges increased 17%, from 18.9 (per 1,000 population) in 1986 to 22.0 in 1998. Rates of CVD were unchanged among people without diabetes but increased 94% among people with diabetes. Nonwhite men (150% for people with diabetes, 12% for people without diabetes) and nonwhite women (104% for people with diabetes, 9% for people without diabetes) experienced greater increase than did white men (94% and -4%, respectively) and white women (71% and 3%, respectively). Rates of stroke and IHD increased 21% and 20% respectively, with great increases seen among people with diabetes (80% for stroke and 87% for IHD).

**Conclusion:** Increases in CVD hospital discharges in SC during 1986–1998 were mainly seen among people with diabetes. Nonwhites experienced greater increase in CVD.

**Learning Objective:** Participants should understand how diabetes affects changes in CVD discharges and be able to analyze hospital discharge data in their states for both diabetes and CVD control programs.

Thursday, November 30, 2000

## NCEP-ATP II Goals for the Public Are Not Being Reached—Carolina Heart Survey

*J. Thomas*

**Objective:** To investigate whether the National Cholesterol Education Program-Adult Treatment Panel II (NCEP-ATP II) goals of adults having their cholesterol checked and knowing the value are being met.

**Setting:** There has been increased public awareness about the risks associated with elevated cholesterol levels. Surveys to determine the public's level of knowledge of cholesterol were conducted 5—10 years ago.

**Method:** A survey of 1,200 randomly selected adult residents of South Carolina was conducted using a 46-item instrument developed to quantify awareness and knowledge of cholesterol.

**Outcome:** Approximately 85% of the respondents were aware that high cholesterol levels can cause a heart attack or stroke. Nearly 80% of the entire sample reported having their cholesterol checked (greater than 90% of those older than age 50 but only 59% of the group aged 18—34 years). Seventy-eight percent were told their cholesterol in numbers, and 24.2% were told they had high cholesterol. Only 36% of the respondents in this survey knew their cholesterol level, and only 40% knew a recommended cholesterol number for an adult.

**Conclusion:** Cholesterol testing has increased compared with previous surveys, reflecting a greater level of cholesterol awareness. However, low rates of cholesterol measurement were detected in young adults, for whom early prevention may be important. The majority of the respondents in this survey did not know their cholesterol number and did not know a good cholesterol level for an adult. NCEP-ATP II goals of all adults having their cholesterol checked and knowing their cholesterol level are not being obtained.

**Learning Objective:** Participants will be able to answer the following questions: Are we meeting the NCEP-ATP II goals for the public? Is the public aware that elevated cholesterol can cause a heart attack or stroke? Does the public know that a cholesterol level of 200 mg/dL or less is desirable?

Thursday, November 30, 2000

## Reducing Smoking and Total Mortality: Successes in California and Massachusetts

*B. Leistikow, D. Martin*

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**Objective:** Since 1988, California reduced smoking to half of 1988 California and 1998 U.S. consumption/person. Massachusetts saw later and smaller smoking reductions. We assessed subsequent all-cause mortality trends.

**Method:** We calculated age-standardized all-cause mortality rates (rates) and mortality deficits [=  $1 - ([\text{state rate}] / [\text{rate for remaining states}])$ ] for California and Massachusetts versus the remaining states from 1970 to 1998. We calculated the mean and standard deviation of the 1970–1998 mortality deficits for California and Massachusetts using Excel software.

**Result:** California's mortality deficit showed a downward trend until the smoking reductions that began in 1989. Since then, California reduced mortality from 25<sup>th</sup> to 4<sup>th</sup> lowest in the United States, more than 2 and 4 standard deviations from the 1970–1998 California mean and 1989 annual death deficits. Massachusetts saw later and smaller yet significant reductions in smoking and mortality. These mortality disparity increases are the equivalent of an extra 25,000 Californian and 2,500 Massachusetts lives saved or, conversely, 200,000 excess deaths in the remaining states in 1998.

**Conclusion:** Inception of effective statewide tobacco control programs in California and Massachusetts has been soon followed by greatly reduced all-cause mortality compared with the remaining states.

Thursday, November 30, 2000

## State Estimates of Behavioral Trends: BRFSS, 1991–1999

*D. Nelson, E. Powell-Griner, S. Bland*

**Objective:** Assess state trends in selected behaviors associated with chronic disease from 1991 through 1999.

**Setting:** Program and policy efforts to address health risk behaviors occur primarily at the state and local levels. A comprehensive overview of state trends for health risk behaviors provides key information for assessing and measuring states' progress.

**Method:** Behavioral Risk Factor Surveillance System data were analyzed for cigarette smoking, obesity, safety belt use, sedentary lifestyle, and binge drinking. Linear regression analyses were performed controlling for age, sex, race/ethnicity, and education. Average annual changes in prevalence were mapped to enable visual comparisons of state trends.

**Result:** Eight states experienced a decline in smoking, and four states experienced increases. All states except Arizona showed an increase in obesity, and 37 of 47 states increased in always using safety belts. Eight states showed a decrease and six states had an increase in sedentary lifestyle. Fourteen states experienced an increase in binge drinking, and only Minnesota experienced a decrease.

**Conclusion:** Strides have been made in only a few states to decrease smoking prevalence, and most of these states had instituted major tobacco control policies and programs during this period. Increases in binge drinking are of concern. There is no clear state trend pattern for sedentary lifestyle, but increases in obesity are widespread and disturbing. Although encouraging individual behavioral change is important, the role of other factors such as social determinants and social policies (e.g., cigarette excise taxes) needs to be considered in efforts to reverse trends in some health risk behaviors.

**Learning Objective:** Participants should be able to describe state trends in the major health risk behaviors and the implications for targeting prevention efforts.

Thursday, November 30, 2000

## Public Health Planning: Centers for Disease Control and Prevention's National Approach to Colorectal Cancer

*N. Lee, C. Beecker, L. Given, C. Jorgensen, L. Seeff, B. Steele*

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**Objective:** To increase awareness of the Centers for Disease Control and Prevention's national approach and public health strategies and activities to prevent and control colorectal cancer.

**Setting:** Although colorectal cancer is highly preventable, it remains the second leading cause of cancer-related death among men and women in the United States. This session provides a forum for the discussion of colorectal cancer prevention and control as a public health initiative. In this session, speakers will explore key issues related to colorectal cancer prevention and control from a variety of perspectives. Those perspectives include research, program and partnerships, surveillance, behavioral science, and communication. Speakers will describe the public health problem and initiative, present current efforts and activities of the Centers for Disease Control and Prevention (CDC), and discuss future challenges and approaches related to colorectal cancer prevention and control. This forum allows participants to learn about current research efforts, national screening, prevalence rates, patient-provider interventions, consumer barriers or routine screening, state prevention and control programs, and "Screen for Life," a national education campaign.

**Conclusion:** Although measuring the impact of CDC's efforts presents challenges, use of this coordinated approach to influencing colorectal cancer screening at a national level is expected to contribute to the reduction of colorectal cancer morbidity and mortality in the United States.

Thursday, November 30, 2000

## Measuring Healthy Days

*D. Moriarty, E. Andersen, F. Mili, N. Keenan, C. Miller*

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**Overview:** Since January 1993, about 1 million adults have responded to a set of four health-related quality of life measures at the beginning of each Behavioral Risk Factor Surveillance System (BRFSS) interview, which ask about self-rated general health, recent physical health, recent mental health, and recent activity limitation. These “Healthy Days” measures—including an expanded set that asks about the main cause, duration, and extent of any reported activity limitation, and about recent pain, depression, anxiety, sleeplessness, and vitality—have been found to be valid, reliable, and responsive to change in several population studies. These measures and population data are proving to be particularly useful for characterizing the symptom burden of disabilities and chronic diseases, including arthritis, cardiovascular disease, cancer, and diabetes. This session will describe the health policy context, validity, and use of these Healthy Days measures for chronic disease surveillance and prevention research.

**Learning Objectives:** Participants will be able to identify and describe the core Healthy Days health-related quality of life surveillance measures used by state health agencies, discuss how and for which populations the Healthy Days measures have been validated, and describe how the Healthy Days measures and population data can be used for chronic disease surveillance and prevention research.

Thursday, November 30, 2000

## REACH 2010: Lessons Learned From the Year One Planning Process—On the Way to Reducing Health Disparities

*I. Ma'at-Shambhala, L. Cantrell, M. Kreuter, R. Milstein*

**Objective:** To support community coalitions to develop and evaluate models to reduce health disparities among communities of color.

**Setting:** Thirty-two community coalitions were funded to participate in the Racial and Ethnic Approaches to Community Health (REACH) 2010 Demonstration Project. The target racial/ethnic groups include African Americans, Alaska Natives, American Indians, Asian Americans, Hispanic Americans, and Pacific Islanders. Priority areas include infant mortality, breast and cervical cancer screening and management, cardiovascular diseases, diabetes, human immunodeficiency virus/acquired immunodeficiency syndrome, and child and adult immunizations.

**Intervention:** REACH 2010 coalitions have been engaged in a planning process for a year to develop community action plans to guide the work of the coalitions during the next 4 years. These projects have developed innovative and creative strategies that can be translated and adapted for use by communities across the United States.

**Outcome:** The community coalitions have embarked upon a dynamic process that has engaged a number of traditional and nontraditional public health partners in the planning process. Organizations such as health departments, community-based organizations, universities and research organizations, Indian tribes, national and regional minority organizations, and faith/church collaborative have been included. Coalitions have focused on conducting needs assessments, collecting and analyzing baseline data, and expanding their coalitions.

**Conclusion:** The talk will highlight the specific experiences of these community coalitions in capacity building and conducting needs assessments, and will describe what worked and what did not work in understanding the contributing factors to health disparities relating to breast and cervical cancer screening and management. The findings from these projects will help to ignite the field of health disparity reductions with replicable and translatable findings.

**Learning Objective:** Participants will be able to describe strategies developed by community coalitions that will assist in defining and reducing health disparities in their own communities.

Thursday, November 30, 2000

## A Comprehensive Evaluation of the State Component of the 5 A Day for Better Health Program

*D. Chapelsky-Massimilla, M. VanDuyn, G. Stables, L. Nebeling*

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**Objective:** To study how the 5 A Day program was implemented across states.

**Method:** This study integrated quantitative and qualitative data for a comprehensive process evaluation of state implementation of the 5 A Day Program between 1995 and 1999. Quantitative data were obtained from semiannual progress reports from state health agencies, a study of the 5 A Day Week campaign, and Behavioral Risk Factor Surveillance System data. Qualitative data were obtained from a case study of five states for an in-depth view of the organization and implementation of these programs and used to identify strategies that affect their effectiveness.

**Content Area:** Using the integrated data, we examined select indicators in four content areas: state program organization (program organization, staffing, ability to influence, expenditures, coalitions); community-level partnering (coalition composition, participating organizations, community context and culture, interagency linkages, coalition size and involvement, program actors); 5 A Day activities; and national fruit and vegetable consumption.

**Outcome:** Limited funding is the key issue facing most states. Programs need an advocate to protect their interests within the state agency. States must leverage resources through partnerships, and both public and private partners are more willing to contribute in-kind resources when the state dedicates sufficient resources to the program.

**Conclusion:** The integrated format of the evaluation study enriched understanding of how the 5 A Day program was implemented across the country and the facilitating and inhibiting factors influencing implementation. These findings can be used by national, state, and local partners in their future policy and program planning efforts.

**Learning Objective:** Participants will understand how a combination of data sources and analytical methods can be used to provide a more comprehensive perspective of broad-scale program implementation and identify the key factors influencing the effectiveness of a state-level health promotion campaign.

Thursday, November 30, 2000

## Enabling the Nation's Schools to Prevent Cardiovascular Disease, Cancer, and Diabetes: A CDC Initiative

*H. Wechsler, C. Fisher*

**Objective:** This presentation will provide an overview of a new initiative of the Centers for Disease Control and Prevention (CDC) designed to enable the nation's schools to prevent cardiovascular disease, cancer, and diabetes. The initiative will address the four risk factors responsible for much of the morbidity and mortality from chronic diseases: tobacco use, excessive consumption of fat and calories, inadequate physical activity, and obesity. CDC will collaborate with other federal agencies, state and local agencies, nongovernmental organizations, and professional associations to carry out four interrelated strategies to help schools promote lifelong physical activity and healthy eating and to prevent obesity and tobacco use: monitor critical health events and school policies and programs; synthesize and apply research to improve school policies and programs; enable CDC constituents to help schools practice effective policies and programs through extensive collaboration with other federal agencies and a wide range of nongovernmental health and education organizations; and evaluate to improve policies and programs. The first products developed as part of this initiative will be described, dissemination plans will be discussed, and products that are being developed will be previewed. Completed products include "School Health Index: A Self-Assessment and Planning Guide"; "Fit, Healthy, and Ready to Learn: A School Health Policy Guide"; and "School Health Resource Database," a clearinghouse and technical assistance service. CDC funds education and health agencies in 20 states to implement activities related to this initiative; examples of state activities will be shared.

**Learning Objective:** Participants will be able to describe the key components of CDC's new initiative to help schools prevent cardiovascular disease, cancer, and diabetes; and identify three benefits of using one of the new CDC tools to help schools carry out school health guidelines.

Thursday, November 30, 2000

## How the Evidence-Base for Effective Chronic Disease Prevention and Management Services Is Used and Viewed by Managed Care Decision-Makers

*L. Scott, J. Gruman, J. Genevro*

**Objective:** The purpose of this project was to gain a better understanding of the factors that influence integration of evidence-based behavior change strategies into managed care practice to prevent and manage chronic diseases.

**Setting:** Despite the availability of evidence-based guidelines for the management of specific chronic conditions, very little is known about how evidence-based information is used and viewed by managed care decision makers (medical directors and health plan purchasers), or about potential barriers to providing services to change unhealthy behaviors.

**Method:** A telephone survey of health maintenance organization (HMO) medical directors in five states and the District of Columbia (n=50) and in-depth interviews with health care purchasers (n=54) were conducted in 1999. Extensive reviews of the literature for four behavioral risk factors (smoking, physical inactivity, dietary practices, and alcohol and other drug misuse) and five chronic conditions (asthma, cardiovascular disease, depression, diabetes, and back pain) also were performed to identify the evidence for behavior change interventions in clinical settings.

**Outcome:** Several hundred scientific studies supporting the effectiveness of behavior change interventions in clinical settings were identified. However, HMO medical directors and health plan purchasers reported a lack of such evidence for chronic disease prevention and management. These decision makers typically indicated that exemplary companies have raised expectations about the quality and accountability of managed health care to provide behavior change services, even though consumers rarely demand them.

**Conclusion:** Integrating evidence-based information into managed care practice will involve changing how decision makers view the evidence and removing other system-level barriers.

**Learning Objective:** Participants will better understand the factors that influence the provision of behavior change services to prevent and manage several chronic diseases in managed care, including how the evidence base for such services is used and valued by managed care decision makers.

Thursday, November 30, 2000

## Institutionalization of “Put Prevention Into Practice” (PIIP) in Primary Care Settings: The Texas Experience

*P. Goodson, M. Smith, A. Evans, B. Meyer, N. Gottlieb*

**Objective:** To examine the institutionalization of “Put Prevention Into Practice” (PIIP), and the organizational determinants of its institutionalization, within five primary care clinics in Texas.

**Setting:** In 1994 federal block-grant funding allowed a demonstration project for “Put Prevention Into Practice” in primary care sites. Although several studies have assessed PIIP’s adoption, examinations of the program’s institutionalization are lacking.

**Method:** Qualitative data were collected from each of the five sites, using an adaptation of the Level of Institutionalization scales (LoIn) and an institutionalization score developed for each site. The organizational and health promotion literatures provided the categories for qualitative analysis of data concerning organizational determinants of institutionalization. For purposes of triangulation, chart audit data for three documentation behaviors (use of flow sheets, health risk assessments, and provision of linked patient education) were also collected.

**Result:** PIIP has been maintained in four of the five sites studied for 6 years after adoption. Organizational factors that facilitated the institutionalization process were the site’s institutional strength, its integration within extant programs and services, visibility of the program within and outside the site, planning for the termination of grant funding and presence of a program champion with mid- to upper-level managerial authority. Successful initiation of the program was not a predictor of institutionalization outcomes.

**Conclusion:** Findings indicate that PIIP can be successfully maintained in primary care settings. Organizational determinants of institutionalization must be considered, however, within their specific sociopolitical contexts, not in isolation.

**Learning Objective:** Participants should be able to describe at least three organizational factors that may influence program maintenance in a clinical environment and the limitations inherent in the search for organizational determinants of program institutionalization.

Thursday, November 30, 2000

## Using Evidence-Based Decision Making to Improve the Quality of Breast Cancer Screening and Diagnostic Services

*S. Lindsay, L. Lianov*

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**Objective:** To improve clinical service quality in a large, state-based breast cancer screening and early detection program.

**Setting:** The California Department of Health Services, Cancer Detection Section (CDS), provides breast cancer screening and diagnostics for low-income women at clinics and hospitals statewide.

**Intervention:** CDS and San Diego State University have initiated the Clinical Services Quality Assurance Project (QAP). The QAP uses evidence-based methods to assess the quality of clinical services and to develop provider education strategies based on these findings.

**Outcome:** Medical record abstraction from a statewide sample of patient records compares the care recorded in each record to standards in “Breast Diagnostic Algorithms for Primary Care Clinicians.” The goals of this comparison are 1) production of statewide estimates of breast cancer clinical parameters, 2) measurement of quality assurance indicators and their relationship to benchmarks, 3) comparison of abstracted data with billing data, and 4) use of Clinical Pathway Analysis to describe the frequency and clinical significance of care paths that show variance from the pathways in the algorithms. Preliminary results of these analyses and a description of the methodologies will be presented.

**Conclusion:** Cancer screening programs frequently use clinicians with a wide variety of skills and experiences. Developing evidence-based methods to assess urgent provider training needs and strategies for program improvement is essential and feasible.

**Learning Objective:** Participants will understand the benefits of an evidence-based approach to quality improvement. They will be able to compare different methodologies including the use of quality assurance indicators and analysis of clinical pathways.

Thursday, November 30, 2000

## The Prevalence of Health Risk Behaviors Among Adults Served by an Inner-City Clinic

*B. Rettig, R. Brewer, J. Eddinger*

**Objective:** To evaluate the prevalence of selected health risk behaviors among adults served by an inner-city clinic in Omaha, Nebraska.

**Setting:** Various health risk behaviors, including obesity and physical activity, are known to increase the risk of diabetes. We developed and administered a brief telephone survey to estimate the prevalence of these risk factors.

**Method:** We obtained an anonymous list of phone numbers for every household served by the clinic from July 1995 through July 1998 (N=1,862). During March 1999, we called 1,858 of these households. We then randomly selected an adult in each household using the Behavioral Risk Factor Surveillance System (BRFSS) computer-assisted interview (CATI) system. Trained interviewers surveyed each adult using a 36-item questionnaire based on the BRFSS phone survey. Chi square analysis was used to compare clinic, county, and state prevalence estimates.

**Result:** A total of 640 adults were contacted by interviewers; 522 (81.5%) completed the survey. Compared with the county population, clinic clients were more likely to be black (69.0% vs. 8.9%) and to have a household income of \$15,000 or less (22.8% vs. 9.2%). They were also significantly more likely ( $P<.01$ ) to have fair or poor health status (25.7% vs. 14.9%); no health insurance (21.3% vs. 7.2%); to be obese (27.4% vs. 17.8%); or to have diabetes (14.6% vs. 6.4%).

**Conclusion:** We found a significantly higher prevalence of health risk factors and disease outcomes among adults served by this clinic.

**Learning Objective:** Participants should understand how and why we developed this unique survey methodology and should understand its strengths and weaknesses.

Thursday, November 30, 2000

## Health Promotion for New York City Workers: Results of a Citywide Worksite Wellness Program

*D. Luisi, S. Deardorff*

**Objective:** To implement a comprehensive, integrated citywide health promotion plan, which can be sustained over time.

**Setting:** Medical and Health Research Association of NYC, Inc, NYC Department of Health (DOH), Department of Transportation, Department of Homeless Services, Department for the Aging, Human Resources Administration, and Health and Hospitals Corporation: 11 worksites and 5,600 employees. Administered by NYC DOH Chronic Disease Prevention Program.

**Intervention:** Developed environmental worksite interventions for reducing cardiovascular disease through physical activity, nutrition, and tobacco control. Established interagency coordination of interventions through development of a Worksite Wellness Council. Coordinated activities include monthly lunchtime lectures, on-site resource centers, yoga, stairclimbing, on-site weight loss, partnerships with restaurants for heart-healthy meals, and increased awareness of smoking policies and cessation resources. Participants were rewarded with incentives and recognition luncheons.

**Outcome:** Creation of an interagency Worksite Wellness Council, sustainability of resource centers, and integrative health promotion services have led to substantial environmental changes. The most significant changes included the establishment of a wellness manager and committee within the worksite, and provision of on-site fitness, eating, and smoking cessation programs. The initiative resulted approximately a two-fold increase in the implementation of each of these components.

**Conclusion:** The interagency Worksite Wellness Council resulted in sustained health promotion activities across all participating agencies. The program's impact on employees has been strengthened by this collaboration among the Council, the Chronic Disease Prevention Program, and other participating agencies.

**Learning Objective:** Participants will learn effective strategies toward building and implementing a worksite wellness program as well as the mechanisms for sustaining a program.

Thursday, November 30, 2000

## Making It Easier to Eat Well at Work

*A. Jesaitis*

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**Setting:** Worksites in New York State.

**Intervention:** Environmental and policy changes in more than 400 worksites increased heart-healthy food options for over 125,000 employees. Twenty-seven State Health Department-funded Healthy Heart Programs worked with these employers for 3 years to make it easier for employees to eat a heart-healthy diet while at work. Some of the most successful strategies included developing policies that outlined foods to be served at company-sponsored events, changing vending machine options, and establishing farmers markets on or near the worksite.

**Outcome:** Heart Check scores increased by more than 100%, reflecting the increased availability of heart-healthy foods at worksites. (Heart Check is a survey tool that measures a worksite's support for heart-healthy behavior and is conducted preintervention and postintervention.)

**Conclusion:** Policy and environmental changes in food options at worksites can significantly improve the culture of the worksite, making it easier for people to make heart-healthy food choices.

**Learning Objective:** Participants will be versed in successful worksite nutrition interventions and be introduced to Heart Check, a simple tool for measuring environmental and policy changes in worksites.

Thursday, November 30, 2000

## Partnering Health Insurance Company and Employee Wellness Programs: Creating Changes That Improve Health

*N. Neff, C. Vandever*

### Oral Presentations

**Objective:** Assist state employees and spouses in adopting healthier behaviors that decrease the incidence and severity of chronic diseases and ultimately decrease health care costs.

**Setting:** State of Utah departments and offices.

**Intervention:** A comprehensive employee wellness program, Healthy Utah (HU), funded by the health insurance company, includes behavior change strategies — physical assessment sessions with personal counseling, on-line and in-person behavior modification programs; policy strategies—cash incentives for health improvements, Governor's approval for exercise release time and participation in HU services; and environmental strategies— establishment of department Wellness Councils.

**Outcome:** Behavior change: More than 15,000 subscribers (37.5%) are members of HU; 30% smoking cessation rate; 25% participate in assessment sessions; 17% eat 5 A Day; 78% manage stress; 60% maintain weight loss after 1 year. Policy: all but three departments have release time policy; 3,000 subscribers are receiving incentives for healthy behavior; increased financial support from insurer for HU. Environment: five departments have wellness councils; State Risk Management collaboration in high-risk worksites. Results from a claims data study currently under way to determine costs related to high-risk and low-risk behaviors and to compare HU members with nonmembers will be presented.

**Conclusion:** Partnering health insurance plans with employee wellness programs is an effective method of providing ongoing health improvement activities and measuring their impact on individual and population health status. It also provides the opportunity for claims data research on any impact the program has on health care costs.

**Learning Objective:** Participants will be able to describe benefits and methods of partnering a health insurance plan with an employee wellness program to improve health.

Thursday, November 30, 2000

## Measuring Urban Worksite Environmental and Policy Supports for Heart Health in Queens, New York City

*M. Smith*

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**Objective:** To document the extent to which environmental supports and promotion of healthy behaviors among workers exist in workplaces in Queens County.

**Setting:** Students from the Health Policy concentration within the Urban Studies Department at Queens College, City University of New York, administered the survey at a varied cross section of 50 workplaces, representing 8 different types of business sectors, and employing a total of 21,634 workers, of which 46% were women.

**Survey:** The Heart Check survey was conducted at 50 worksites in Queens, New York City, by students from the Health Policy concentration in the Urban Studies Department at Queens College as the key year 1 activity of the Queens College Community Health Promotion Program. The survey documented the extent to which worksite environments and policies currently support heart-healthy behaviors. Questions addressed infrastructure promoting worksite wellness, tobacco, nutrition, physical activity, and other preventive behaviors. The unit of measure was the worksite as opposed to the employee. The survey also examined levels of need for interventions related to these behaviors.

**Outcome:** The overwhelming majority of worksites (92%) did not adequately promote the cardiovascular (CVD) health of their employees. One in four (27%) expressed moderate to high levels of readiness to participate in developing a worksite wellness program. Of the total cohort of employees represented, approximately 11,000 (50%) were not racially white. In addition, the majority of employees (68%) reported annual incomes below \$30,000.

**Conclusion:** The ethnicity and income of the majority of employees whose worksites were surveyed indicated that they are substantially more likely than whites and higher earners to have one or more CVD risk factors. On the basis of low heart-check scores and characteristics of employees, the survey identified worksites that will be invited to participate in development of a comprehensive worksite wellness program.

**Learning Objective:** Participants will learn how to effectively engage the business community to cooperatively participate in documenting their existing environmental supports and health promotion efforts, and use survey results to inform, educate, and promote workplace wellness to employers in highly diverse communities.

Thursday, November 30, 2000

## **Creative Partnering and Prevention Marketing: A New Tool for Communities' Battles Against Chronic Disease**

*K. Brown, C. Bryant, M. Forthofer, D. Landis, R. McDermott*

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**Objective:** To train communities, through academic/public health/ community partnerships, in the implementation of community-based prevention marketing (CBPM) to prevent disease and promote health.

**Setting:** The first demonstration of CBPM is a joint effort with the Florida Prevention Research Center, the Sarasota County Health Department, and the Sarasota County community to prevent smoking and alcohol drinking among Sarasota middle school youth.

**Approach:** CBPM blends community organization, behavioral theories, and social marketing into a synergistic framework for directing positive change. Community participation and control guide program and policy planning, implementation, and evaluation. Communities mobilize, select a population and behavioral target, conduct research to identify the individual, social, and structural determinants of the population, develop social marketing interventions, and rigorously evaluate the impact of the model throughout the process.

**Outcome:** The Sarasota Community Advisory Committee has been effectively mobilized and trained in CBPM. Content and process evaluation has been conducted. Qualitative research has been implemented by Sarasota high school students trained in qualitative research and a report developed. A quantitative survey has been implemented with more than 2,000 Sarasota students and a report developed. Research results will be used to develop a social marketing campaign that will take place in early fall and will be presented.

**Conclusion:** The development of effective prevention programs and policies requires development of a community-based infrastructure for planning, the community's voice and control in program and policy development, and an innovative framework within which to organize the efforts. Community-based prevention marketing is one method that has been effectively used to address these requirements.

**Learning Objective:** Participants will be able to 1) describe a new, innovative approach for preventing harmful health behaviors; 2) identify the steps involved in implementing this approach in their own communities; and 3) analyze a case study of the model in action.

Thursday, November 30, 2000

## Evaluation of a 5 A Day Social Marketing Campaign vs. Curriculum Intervention for Middle School Adolescents

*H. Leonard, M. Brimhall, R. Thackeray, J. Ware, K. Paras, B. Neiger, G. Stoddard*

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**Objective:** To evaluate the effectiveness of a social marketing campaign at increasing fruit and vegetable intake among middle school adolescents compared with traditional 5 A Day health curriculum and no intervention.

**Setting:** Three schools in an ethnically diverse urban school district.

**Intervention:** The intervention took place among 700 seventh- and eighth-grade students and was developed using a social marketing framework. Fruit and vegetable consumption, self-efficacy, asking behaviors, attitudes toward fruits and vegetables, and availability and presentation in the cafeteria were examined through surveys, focus groups and one-on-one interviews with students, parents, faculty, and food service employees. Divided into a three-pronged approach, the interventions targeted 1) student body, 2) cafeteria, and 3) parents. The campaign was implemented February–May 2000.

**Outcome:** Preliminary analysis shows that 74% of intervention students surveyed reported the weekly snack breaks helped them eat more fruits and vegetables, and 67% said the fruit and vegetable carts in the cafeteria helped them eat more fruits and vegetables. Posters, displays, and intercom announcements also received high ratings. During the intervention, participation in school lunch increased by 11%. Changes in number of servings of fruits and vegetables eaten daily will also be reported for the intervention, curriculum, and control schools.

**Conclusion:** The results suggest that a social marketing campaign can increase middle school adolescents' consumption of fruits and vegetables. Interventions that make fruits and vegetables more accessible to students are most successful. These results contribute to the knowledge of whether social marketing programs can potentially be more effective than traditional approaches. Furthermore, this program could become a prototype for working with adolescents in schools to promote other healthy behaviors.

Thursday, November 30, 2000

## **The California Women's 5 A Day Evaluation Study of Social Marketing Activities Using Mass Media, Public Relations, and Retail Supermarkets**

*S. Sugerman, J. Gregson, D. Beall, M. Fierro, S. Wu, S. Foerster*

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**Objective:** Women are in key positions to influence the diets of their families through their role as food manager in the home. In response to this role, and to fill nutrition promotion gaps in California, the California produce industry, leading California retail grocers, and the California 5 A Day Campaign developed a promotion program targeting middle-income women. This evaluation study investigated the effectiveness of the new *California Women's 5 A Day – for Better Health Campaign*. The evaluation study examined the relative contributions to attitudinal change of several social marketing communication approaches that were theoretically based on a Social-Ecological Model: public service, mass media, and public relations through press releases and television public service announcements; retail supermarket promotions; and paid radio placements. The study used a cohort design that measured change in individual behavioral antecedents before and after the intervention as assessed by a 10-minute telephone interview. Conducted between February 1999 and April 1999, the study targeted women between the ages of 35 and 54 years who had at least some college education and household incomes between \$35,000 and \$120,000 per year. Paid radio advertising was the most effective intervention strategy, and women in that intervention county were significantly more aware of the promotion. Respondents were not significantly more aware of television public service announcements and retail point of sale promotions. Implications for future intervention include the value of using purchased radio and television promotion slots when feasible, and using media to reinforce messages and supplement other initiatives.

**Learning Objective:** The audience will learn how to design a multilevel social marketing program based on the Social-Ecological Model, and the audience will learn about the estimated effectiveness of paid radio advertising when compared with other, less costly communication channels.

Thursday, November 30, 2000

## Strong Bones for a Lifetime Mall Walk Campaign

*B. Baron, A. Hewitt, G. Mackenzie, A. Thompson*

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**Objective:** To increase awareness of osteoporosis for all New Jersey residents through an innovative coalition of public, not-for-profit, and corporate partners.

**Setting:** The Education Coalition of the New Jersey Interagency Council on Osteoporosis presented four “Strong Bones for a Lifetime” events at shopping malls statewide. Included were a mall walk; a series of interactive booths highlighting prevention, nutrition, screening and risk assessment; expert presentations; and a milk moustache photo competition. Media training supported an extensive media campaign (print, radio, and television). A follow-up survey assessed the influence of participation on awareness, knowledge, and behavior intentions relating to osteoporosis.

**Outcomes:** A unique collaboration by government agencies, pharmaceutical companies, academic institutions, not-for-profit organizations, local health organizations, individual health care practitioners and educators, students, and consumers. Successful delivery of four Strong Bones for a Lifetime Mall events with a procedural guide for replication. Development, mass duplication, and dispersion of an Osteoporosis Assessment brochure.

**Conclusion:** A multimedia educational campaign reached more than half a million New Jersey residents (estimated value \$415,000). Survey data indicated that 73% of respondents had heightened osteoporosis awareness, 87% increased their knowledge of dietary changes and exercise, and at least 50% planned to positively change their lifestyle behaviors.

**Learning Objective:** To effectively deliver a large-scale osteoporosis education program through a public and private partnership.

Thursday, November 30, 2000

## Telephone Weight Loss Advisors Provide Obesity Treatment in Primary Care

*K. Sutton, E. Logue, W. Smucker, K. Baughman, D. Jarjoura, C. Capers*

**Objective:** To compare obese adults treated by dietitians trained as weight loss advisors (WLA) or usual care on rates of voluntary treatment continuation, progress in weight-loss behaviors and weight lost.

**Setting:** One solution to undertreatment of obesity in primary care is to train dietitians to collaborate with physicians as weight loss advisors (WLA), providing long-term counseling for many primary care patients as well as periodic reports to physicians.

**Method:** Five hundred forty obese primary care patients enrolled in the REACH trial were randomly assigned to treatment by WLAs or usual care. WLAs treated patients in brief, monthly telephone sessions which focused on weight-loss behaviors using cognitive-behavioral techniques tailored to patient's stage of change (SOC). Physicians received 6-month progress reports.

**Result:** At 6 months, voluntary treatment continuation rates were 73% for WLA patients and 63% for usual care patients. WLA patients had lost 5.29 pounds and usual care patients 3.94 pounds. Among WLA patients, more than 50% had progressed to the "action" or "maintenance" stage in 2.45 (out of 5) behavioral weight-loss areas. WLAs generated over 250 progress reports for 45 primary care physicians.

**Conclusion:** At 6 months, data indicate that telephone weight loss advisors are an effective adjunct to obesity treatment in primary care.

**Learning Objective:** Participants should be familiar with a innovative approach to obesity treatment in primary care. Funding provided by AHRQ and NIDDK (RO1HS0880302S1).

Thursday, November 30, 2000

## **A Randomized Trial of an Innovative Program to Improve Self-Care Behaviors of African American Women With Type 2 Diabetes: Impact on Diabetes Knowledge**

*T. Keyserling, C. Samuel-Hodge, A. Ammerman*

**Objective:** To assess change in diabetes knowledge associated with a 1-year intervention targeted to the cultural and social needs of participants.

**Setting:** Because day-to-day management of diabetes involves a complex set of behaviors, successful self-management requires a basic level of knowledge about diabetes and self-care strategies. Here, we report on changes in diabetes knowledge associated with the intervention at 6-month follow-up.

**Method:** African-American women aged 40 or older were recruited from seven primary care practices in North Carolina: 67 were randomized to Group A (clinic and community intervention), 66 to group B (clinic only intervention) and 67 to Group C (minimal intervention). The clinic intervention consisted of four visits with a health counselor who used diet and physical activity assessments and coordinated educational materials. The community intervention consisted of two group sessions and monthly phone calls from a nonprofessional peer counselor. Diabetes knowledge was assessed by a 15-item adaptation of the Diabetes Knowledge Scale; each correct answer contributes 1 point to total score (maximum = 15). For 6-month outcomes, Groups A and B (special interventions) are compared with C.

**Result:** Baseline means were age (59) years with diabetes (10), body mass index (BMI) (36), and knowledge score (9.0). Follow-up at 6 months was 90%. The knowledge score increased 1.4 in Group A, 1.3 in Group B, and 0.3 in Group C. Comparing Groups A and B with C, and controlling for age, education, years with diabetes, and BMI, the difference was 1.1,  $P = .01$ .

**Conclusion:** At 6-month follow-up, the knowledge score increased significantly in the intervention groups compared with the minimal intervention.

**Learning Objective:** Participants should appreciate the importance of culturally appropriate intervention programs.

Thursday, November 30, 2000

## Community-Based Interventions for Type 2 Diabetes: Glycemic Control, Behavioral Change, and Psychosocial Status

R. Young, R. Kaczynski, J. Waller, J. Young

**Objective:** This epidemiological and intervention study investigated the effectiveness of a self-care education and skills training program on a glycemic control, reduction of risk factors for diabetes complications, and quality of life.

**Method:** We enrolled a total of 387 predominantly minority persons in a 12-session education and behavioral change program to control diabetes and effect self-management. The program was offered at 30 church-based sites. Preprogram and postprogram assessments were made of diabetes history, risk factors, self-care, and psychosocial status.

**Result:** Study subjects were 73% female, mean age 59, 67% African American, and 26% white. Hypertension, poor glycemic control, and obesity were highly prevalent (average intake weight was 194 lbs.). Postprogram assessment showed significant improvement in hemoglobin A<sub>1c</sub> hemoglobin and systolic and diastolic blood pressure ( $P < .05$ ). Of persons hypertensive at baseline, 40% were now normal ( $P < .001$ ). Self-care rose ( $P < .001$ ) as did blood glucose testing ( $P < .001$ ) and personal foot care ( $P < .001$ ). Psychosocial improvement was found for diabetes adaptation ( $P < .01$ ) and depression ( $P < .001$ ). Obesity remained a problem, despite weight loss during early weeks of the program.

**Conclusion:** The effectiveness of a longitudinal curriculum on diabetes control was demonstrated by the integrated education and behavioral change program. Risk factors for complications of diabetes dropped, self-management and understanding of appropriate diabetes care increased, and there were important mood and attitudinal changes. Weight control remained an elusive goal. Implications of the study and the potential for expanding the program will be discussed.

**Learning Objectives:** Provide information about a longitudinal self-care education and skills training program for people with, and at risk for type 2 diabetes; review the curriculum for self-care and empowerment. Present diabetes epidemiology data for 387 predominantly minority persons enrolled in the 12-session program. Present effectiveness and outcome data for glycemic control, risk factor status, complications, quality of life, and behavioral change found in program graduates. Understand the difficulties people have with sustained behavioral change that is essential to control diabetes.

Thursday, November 30, 2000

## A Randomized Trial to Improve Self-Care Behaviors of African American Women With Type 2 Diabetes: Impact on Physical Activity

*T. Keyserling, A. Ammerman, C. Samuel-Hodge*

**Objective:** To improve moderate intensity physical activity (PA) by means of a 1-year intervention targeted to the cultural and social needs of participants.

**Setting:** Physical activity (PA) is an important component of diabetes self-care, yet little is known about the impact of intervention programs on PA, especially for older African American women.

**Method:** African American women aged 40 years and older were recruited from seven practices in North Carolina: 67 were randomized to Group A (clinic and community intervention), 66 to Group B (clinic-only intervention), and 67 to Group C (usual care). The clinic intervention consisted of four visits with a health counselor; the community intervention consisted of two group sessions and monthly phone calls from a nonprofessional peer counselor. PA (MET-min/day) was assessed by Caltrac accelerometer worn during waking hours for 7 days. Barriers to PA were assessed by a 16-item questionnaire with each item receiving a score of 1 (not a barrier) to 3 (strong barrier) and summed for a total score. For 6-month outcomes, Groups A and B (special interventions) are compared with C.

**Result:** Baseline means included age (59), years with diagnosed diabetes (10), body mass index 36, MET min/day (1753), and PA barrier score (26.0). Follow-up at 6 months was 90%. MET min/day increased 13.0 in Group A, 6.4 in Group B, and decreased 27.9 in Group C. Comparing Groups A and B with C, the difference was 37.6 (equal to 12.5 minutes of activity at 3.0 MET intensity),  $P=.06$ . PA barrier score decreased (improved) 2.5 in Group A, 2.0 in group B, and increased 0.5 in Group C. Comparing Groups A and B with Group C, the difference was 2.7,  $P=.008$ .

**Conclusion:** Self-reported barriers to PA decreased in the special intervention groups.

**Learning Objective:** Participants should appreciate that interventions directed toward moderate-intensity physical activities can be effective for older African American women with type 2 diabetes.

Thursday, November 30, 2000

## Community Church-Based, Low-Income Hispanic and Undocumented Immigrant Health Care Interventions Project

*G. Allbritton, X. Rojas*

**Objective:** To examine disparities in health care access and outcomes among low-income Hispanic and undocumented immigrants in Tarrant County, Texas.

**Setting:** A collaboration of the Tarrant County Public Health Department, the University of North Texas Health Science Center School of Public Health, Harris Methodist Health System, and Osteopathic Medical Center of Texas examined past and current emergency department usage patterns and resultant health outcomes in the undocumented immigrant and low-income Hispanic population in Tarrant County, Texas.

**Intervention:** A communitywide consortium researched retrospective emergency department data from two large area hospitals to determine how low-income Hispanics and undocumented immigrants accessed needed care. Retrospective analysis of 1998 and 1999 data from these health care facilities was examined to assess trends in health care outcomes in this at-risk population with no other usual source of health care. These data were used to educate key community leaders and seek influence in developing a 1-year pilot project to operate a church-based primary care clinic in an Hispanic neighborhood.

**Outcome:** As expected, data revealed large disparities in health care outcomes in this minority population. Most of these chronically ill clients used emergency departments as a last resort, and this pattern reflected a greater probability of poor outcomes. Many of these at-risk clients delayed seeking health care because of fear of deportation or arrest.

**Conclusion:** Tarrant County, Texas, faces a growing number of low-income Hispanics and undocumented immigrants with chronic health problems, and no usual source of care. Primary care physicians and hospital networks are reluctant to take on high-risk, chronically ill patients with no financial resources. Undocumented immigrants and low-income Hispanics typically seek refuge and community in the neighborhood church. Crisis management is an unacceptable alternative to neighborhood-based primary care.

**Learning Objective:** Participants will be able to identify barriers to primary health care access for undocumented immigrants and low-income Hispanic clients, and describe the benefits of indigenous church-based primary care clinics for chronically ill minority clients.

Thursday, November 30, 2000

## Reaching African Americans in Their Community for Better Diabetes Health

*J. Hare*

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**Objective:** To reach and empower African Americans to take ownership of, and responsibility for, their own diabetes health care and to increase availability of medical information and health care opportunities in this disparate urban population by using federal, state, local, and neighborhood resources.

**Setting:** A task force of federal, state, local, and neighborhood agencies was created and a work plan developed to coordinate activities to reach an urban African American population for better diabetes care and healthier lifestyles.

**Interventions:** A survey tool was created and distributed in African American churches to identify specific health needs of parishioners. Ministers and lay persons were involved in distributing diabetes information within the church environment. Blood glucose, foot, and kidney screenings were coordinated and held at community locations that were frequented by African Americans. Health fairs demonstrating healthy food preparation methods using specific African American foods, recipes, and cookbooks were held in local churches. Grocery store tours were hosted in neighborhood grocery stores to illustrate appropriate food choices and how to understand nutrition labels. Within each of six African American churches, two health promotion lay persons were identified. A training curriculum was developed that can be used by laypersons to present information on basic diabetes and healthier lifestyles within their parishes. A directory of African American health care workers was developed for referral purposes.

**Outcomes:** Increased participation of African Americans in obtaining diabetes information resulting in positive lifestyle changes. Increased awareness and involvement of parishes in recognizing health care needs of members. Increased identification of people with diabetes through community screenings.

**Conclusion:** African Americans are more likely to participate in blood glucose and other screenings that may result in earlier diabetes detection and to receive information that can lead to healthier lifestyle behaviors when health care opportunities are provided in their own neighborhoods or communities.

**Learning Objective:** Learning is more likely to occur in nontraditional, informal, and familiar settings for this disparate population.

Thursday, November 30, 2000

## Using Community Partnerships to Address Health Disparities: “My Body, My Temple” Health Promotion Conference

*S. Bullock, L. Pekuri, S. McClellan*

**Objective:** To give African Americans the knowledge, skills, and resources to empower them to live healthier lifestyles, which can reduce their risk or improve their management of chronic diseases.

**Setting:** Since 1998, the South Carolina Department of Health and Environmental Control-Wateree Health District Health Promotion Team has organized a culturally diverse planning committee from four predominately rural counties in South Carolina. The committee, which includes grassroots advocates and community leaders, has organized and implemented three annual health promotion conferences.

**Intervention:** A conference addressing chronic disease prevention and health promotion for the African American population and those who provide services to African Americans was developed and promoted in Clarendon, Kershaw, Sumter, and Lee counties in South Carolina. Strategies of the conference have focused on promoting health for families, women, and churches and church organizations. Information on cardiovascular disease, cancer, diabetes, mental illness, osteoporosis, and human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) was disseminated through panel discussions, exhibits, participant resource packets, and plenary and concurrent sessions.

**Outcome:** An increased awareness of health disparities, prevention of chronic diseases, and adopting healthier lifestyles has developed among the African American population in these counties to assist in “closing the gap” in health disparities. Community ownership of the conference by community and church organizations has been achieved.

**Conclusion:** Using community partnerships for various aspects of the conference has ensured that the needs of the population are addressed appropriately. Evaluations from the participants and community partners provide an opportunity for feedback.

**Learning Objective:** To establish a community-based infrastructure that addresses health issues for ethnic populations and provides current information on tobacco use prevention, physical activity, and healthy eating and nutrition to promote healthy lifestyles and prevent chronic disease.

Thursday, November 30, 2000

## First Steps in Eliminating Cardiovascular Health Disparities: Identifying Beliefs and Practices in Communities of Color

*M. Casey*

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**Objective:** To determine the beliefs and practices about cardiovascular health in members of African American and Latino faith-based congregations in New York City.

**Setting:** To address disparities in cardiovascular disease among minority populations in New York State, information was needed about barriers to physical activity and healthy eating within these communities. A workgroup of leaders of large faith-based organizations provided insights into barriers to healthy behaviors within their congregations and suggestions for strategies to overcome them.

**Intervention:** Seven focus groups of African Americans and Latinos from diverse faith communities were held in spring 2000 in New York City. Conducted by a professional marketing research firm, each followed the same format. Participants were asked about their beliefs and practices regarding nutrition, physical activity, and cardiovascular disease, and barriers to healthy behaviors within their communities.

**Result:** Preliminary analysis indicates that groups have adequate information and knowledge of heart-health risks and prevention methods. Numerous barriers to heart-healthy lifestyles were identified, and socioeconomic and environmental factors were uppermost.

**Conclusion:** Changes within the environments of these communities will have the most significant impact on health behaviors. Insights gained from the focus groups alerted staff to beliefs held by the customers and significantly influenced the intervention that was subsequently conducted.

**Learning Objectives:** Participants should be able to describe the individual and environmental barriers to cardiovascular disease prevention in communities of color within this urban setting. Participants should also be able to describe suggested strategies for addressing these barriers.

Thursday, November 30, 2000

## The National Tobacco Control Program Chronicle: Internet-Based Progress Reporting as a Learning Tool

*L. Goodman, M. Hill, M. Kegler, K. Klimowski*

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**Objective:** Creation of new Internet-based, interactive progress reporting system allows state tobacco control programs to report use of cooperative agreement funds to the Centers for Disease Control and Prevention's Office on Smoking and Health.

**Setting:** The National Tobacco Control Program is the CDC Office on Smoking and Health's tobacco prevention initiative for the 50 states; Washington, D.C.; and the U.S. territories.

**Intervention:** The paper progress reporting system was reviewed and determined to be less efficient than an Internet-based reporting system. Use of an interactive Internet-based reporting program provides the opportunity to use 6-month reporting periods as a learning opportunity for enhancing the quality of comprehensive tobacco control initiatives at the state level.

**Outcome:** This conference presentation will present the internet based reporting system, discuss state input in the creation of the system, and describe how the reporting system is linked to the Office on Smoking and Health's initiative to adopt comprehensive electronic-based communications systems.

**Conclusion:** Internet-based reporting systems such as the NTCP Chronicle provide a unique opportunity to integrate technical assistance and learning opportunities to required progress reporting.

**Learning Objective:** Participants will understand the process of creating an Internet reporting system, using input from intended users. Participants will also learn how Internet reporting systems can integrate technical assistance and learning opportunities.

Thursday, November 30, 2000

## Development of a Publicly Accessible Database for Population-Based Prevention Research at NIH

*K. Salguero, S. Kaler, M. Taylor, W. Harlan*

**Objective:** To provide a registry of population-based prevention research (PBPR) supported by the National Institutes of Health (NIH) that is accessible to scientists and the public.

**Setting:** Twenty-two institutes and centers (ICs) at NIH fund biomedical research. This research includes prevention-oriented projects, but presently there is no database that compiles PBPR for the entire NIH portfolio.

**Methods:** We applied a dual search strategy to the NIH grants portfolio to retrieve PBPR projects. In one arm, NIH Office of Extramural Research staff used 125 grant indexing terms relevant to prevention, clinical trials, and public health to query their mainframe database (an “indexing term search”). In the other approach, we queried the Internet-accessible CRISP (Computer Retrieval of Information on Scientific Projects) database in a “text-based search.” The latter specifically identified projects whose title or abstract contained one or more relevant words (e.g., prevention, epidemiology, trial, community, education). To validate this dual search strategy, we analyzed FY 1998 projects from two institutes (n=1,905) and collated the outputs. One or more of the authors visually reviewed all projects that were common to both searches and classified (as PBPR or non-PBPR) a 10% random sample of projects that were detected in one but not both searches. The dual search strategy was applied subsequently to the entire FY 1999 NIH portfolio.

**Results:** In the pilot study of two institutes from FY 1998, neither search strategy alone identified all relevant projects. False positives and false negatives occurred using either the indexing term search or the text-based search individually. In contrast, 100% of projects found by the combined strategies (n=525) met our definition of PBPR. Of 73,472 FY 1999 projects (all 22 ICs) analyzed subsequently, 7,883 and 11,277 projects were identified by the respective search approaches, with 4,988 detected in both. Classification of projects found in one but not both searches (n=9,184) is in progress; we estimate that approximately 75% of the FY 1999 PBPR projects have been ascertained to date.

**Conclusion:** We developed an effective strategy for capturing PBPR projects from within the large total NIH grants portfolio. The completed PBPR database should be particularly useful for identifying areas where gaps in prevention research may exist, e.g., a specific chronic disease or health disparity. Our goal is to provide the completed database for FY 1999 in a publicly accessible format, viz., the NIH Office of Disease Prevention Web site (<http://odp.od.nih.gov>) by fall 2000.

**Learning Objective:** Health care professionals and the public will gain knowledge about the nascent NIH database on PBPR and understand its derivation.

Thursday, November 30, 2000

## Tracking Cancer Communications Campaigns

*C. Jorgensen, T. Richards*

**Objective:** To describe how television (TV) marketing research technology, combined with geographic information system (GIS) analysis, was used for monitoring and process evaluation of two Centers for Disease Control and Prevention (CDC) cancer campaigns: the skin cancer prevention campaign entitled “Choose Your Cover” (CYC) and the colorectal cancer screening campaign entitled “Screen for Life” (SFL).

**Method:** For the last 3 years, TV public service announcements (PSAs) from CYC and SFL were SIGMA-encoded before being distributed to individual local TV markets in the United States, defined by Nielsen Media Research (Nielsen) as “Designated Market Areas” (DMAs). Nielsen uses DMAs to classify geographic areas reached by television broadcasts. SIGMA is a proprietary electronic tracking service that enables PSA video airplay usage to be monitored, including the service provider, date, and time. The SIGMA-encoded airplay data were analyzed using SAS. In addition, DMA maps were developed for selected airplay process measures, using Environmental Systems Research Inc. (ESRI) ArcView GIS 3.2 software.

**Result:** Despite having two very different messages and audiences, both cancer campaigns show more similarities than differences. For example, more than two-thirds of airplay for both campaigns occur in the nonovernight hours, and both campaigns are played in similar DMAs. Each are played in approximately 140–150 of the top 210 DMAs. Plotting total airplay by week from launch, however, shows very different patterns. In addition, CYC receives approximately 40% of the airplay from independent stations, with the remainder divided somewhat equally among the four major networks. SFL receives 40% of its airplay from NBC affiliates. These and other major findings will be presented and discussed.

**Conclusion:** The applications of TV marketing research technology, combined with GIS analysis, is useful in process evaluation of PSA campaigns, and also in developing plans to improve PSA marketing efforts in subsequent years of the campaigns.

**Learning Objective:** Participants should be able to describe how TV marketing research methods such as SIGMA encoding can be combined with GIS analysis for process evaluation and marketing plans.

Thursday, November 30, 2000

## Use of GIS to Target Outreach Activities and to Evaluate Screening Success in the Indiana Breast and Cervical Cancer Early Detection Program

*C. Friesen, J. Gardner*

**Objective:** To demonstrate how geographic information systems (GIS) can help determine areas of highest need for medical screening and to evaluate the success of current screening activities in reaching a state's most at-risk population.

**Setting:** The National Breast and Cervical Cancer Early Detection Program (NBCCEDP) has received federal funds since 1990. Indiana has received funds to screen women since 1996. The priority population includes low-income (< 250% poverty), minority, underinsured or uninsured and underscreened women aged 50–64 years. Identifying the highest concentration of at-risk women in a geographic region using GIS mapping strategies allows programs to focus efforts to enroll providers and conduct public education and outreach activities. Thus, programs maximize federal dollars and help the most at-risk women.

**Method:** The Indiana Breast and Cervical Cancer Program (IN-BCCP) used census data, GIS shape maps, and NBCCEDP data to create a “risk score” for each zip code. Areas with the largest standard deviation below the mean for income, and above the mean for age and race, were identified as the most “at-risk” areas. The risk scores were mapped to locate areas of highest need; maps were shared with outreach workers and regional coordinators and are used to evaluate progress in meeting screening goals.

**Result:** Applying GIS technology to census and program data has allowed our regional coordinators and outreach workers to work more effectively. Consequently, the IN-BCCP continues to achieve CDC Program Quality Indicators.

**Conclusion:** GIS technology is extremely beneficial in identifying geographic areas where screening need is greatest and is an excellent evaluation tool to identify program successes and failures.

**Learning Objective:** Participants should be able to apply GIS technology to program data to identify areas at higher risk and to evaluate success of program outreach activities.

Thursday, November 30, 2000

## Efficacy of a Tailored, Interactive, Multimedia Breast Cancer Intervention for Low-Income Latinas

*A. Valdez*

**Objective:** To improve breast cancer knowledge, attitudes, and screening behavior among low-income, less educated Latinas—a population with low breast cancer screening rates and high rates of late-stage detection.

**Setting:** Income, education, and race are highly correlated with non-adherent breast cancer screening behavior. Women who do not practice regular breast cancer screening (i.e., nonadherent women) are generally low-income, less-educated minority women. Latinas have the highest rate of women who have never had a mammogram, 17.6%, compared with 15.6% for blacks and 14.6% for white non-Hispanics.

**Method:** A randomized, parallel group design was used to evaluate the efficacy of the intervention in six field sites: two health maintenance organizations, three community clinics, and a community center. The intervention messages, which were available in English or Spanish, were delivered through an interactive multimedia touch screen kiosk and tailored on the basis of age and mammogram history. A total of 1,200 Latinas were randomly assigned to pretest and posttest groups. Approximately 25% of the women were contacted in a follow-up telephone survey 4 months later to determine behavioral change resulting from the intervention.

**Result:** Significant differences in knowledge and behavioral intent were found between the pretest and posttest groups. The follow-up telephone survey found that 51% of women that had never had a mammogram or had not had one in 2 years had either obtained a mammogram or had scheduled a mammogram within 4 months after exposure to the intervention.

**Conclusion:** The findings from this analysis indicate that tailored breast cancer messages delivered through innovative technology were acceptable to low-income Latinas and were effective in educating them and promoting significant adoption of mammography screening behavior for nonadherent women.

**Learning Objective:** Participants should be able to describe the acceptance and efficacy of a innovative multimedia technology for educating low-income Latina women about breast cancer screening and early detection.

Thursday, November 30, 2000

## New York City Women's Healthy Heart Consortium

*D. Luisi, R. Cecire*

**Objective:** To develop an integrated women's cardiovascular awareness prevention campaign targeting women over 45 years of age.

**Setting:** The New York City Department of Health and representatives from various health sectors.

**Intervention:** The NYCDOH Established a Women's Healthy Heart Consortium with representatives from government, medical centers, HMO's, health care advocacy organizations and the pharmaceutical industry. Under the direction of the consortium, a series of ethnically targeted focus groups were established to explore women's knowledge, attitudes and beliefs around cardiovascular health. In addition, art institutes were solicited to develop icons for the "Listen to Your Heart" campaign. These icons were used for floral message cards, earring designs and a campaign logo. Currently, the Consortium is collaborating with the City Council to develop a citywide cardiovascular awareness mailing, culminating in a legislative day. With support from the Council members, the consortium will pursue the development of a national cardiovascular postal stamp.

**Outcome:** This initiative has resulted in the creation of a citywide Women's Healthy Heart Consortium, the collection of ethnically diverse qualitative data provided by local focus groups, the establishment of a logo and marketing of items to increase cardiovascular awareness, as well as the education of legislators and their constituents.

**Conclusion:** The Women's Healthy Heart Consortium resulted in an increased collaboration among multi-sectors in the promotion of women's cardiovascular health.

**Learning Objective:** Participants will learn how to develop and implement a multifaceted social marketing campaign. They will learn that cardiovascular disease is not a male phenomenon, but in fact, is among the greatest causes of mortality for women in this age group. They will become familiar with risk factors, and will be able to identify health promotion activities that will encourage better cardiovascular health.

Thursday, November 30, 2000

## Outcome Evaluation of Paid Counter-Marketing Campaigns for Tobacco Control

*L. Petersen, D. Sly*

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**Objective:** To provide an overview of methods available to conduct outcome evaluation of paid tobacco control counter-marketing campaigns. Evaluation results from Florida's "truth" campaign will highlight a recent applied use of the suggested methodologies.

**Setting:** As tobacco control programs mature, many states are planning counter-marketing campaigns as a component of their programmatic activities. Outcome evaluation is necessary to assess related changes in knowledge, attitudes, and behavior.

**Intervention:** Conducting an evaluation of a paid counter-marketing campaign includes determining the target population's exposure to the paid campaign; their awareness of specific themes of the message and ability to recall them; and changes in knowledge, attitudes, and beliefs that can be attributed to the campaign.

**Conclusion:** Outcome evaluation of counter-marketing strategies requires clearly identifying the campaign's health communication objectives. In the Florida case study, key evaluation indicators such as message exposure; awareness and recall; and changes in knowledge, attitudes, and beliefs were measured through surveys of the targeted population and continuous monitoring of trends in smoking behavior.

**Learning Objective:** Participants will be able to identify key indicators to include in an outcome evaluation of a paid tobacco control program media campaign.

Thursday, November 30, 2000

## Using Audience Segmentation Techniques to Prevent Adolescent Tobacco and Alcohol Use

*M. Forthofer, C. Bryant, K. Brown, D. Eaton, L. Bailey, D. Landis, R. McDermott*

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**Objective:** To demonstrate the strengths and limitations of available approaches to segmenting target audiences in social marketing projects, using the prevention of adolescent substance use as a case example.

**Setting:** The case example will be from the Tobacco-Free Youth of Sarasota initiative, one of the Florida Prevention Research Center's Community-Based Prevention Marketing demonstration projects.

**Intervention:** The Florida Prevention Research Center and both youth and adult members of the Sarasota Community have collaborated in extensive formative research to develop a social marketing program to prevent adolescent tobacco and alcohol use. The research included 1) an in-depth, qualitative analysis of data from 22 focus groups and 112 individual interviews; 2) the development of a standardized survey instrument based on the results of the qualitative analysis and existing literature; 3) four phases of survey pilot testing with 6<sup>th</sup> through 10<sup>th</sup> graders; and 4) administration of the survey to more than 2,000 students in grades 6 through 10 in 15 schools throughout Sarasota County.

**Outcome:** The analysis of formative research data from the demonstration project will be used to illustrate the value of audience-segmentation techniques for setting priorities in intervention program development, and the strengths and limitations of various available techniques.

**Conclusion:** Audience-segmentation techniques enable evidence-based programming and allocation of program resources to maximize intervention impact.

**Learning Objective:** Participants will be able to identify the distinguishing characteristics of audience segmentation and describe the strengths and limitations of different approaches to audience segmentation.

Friday, December 1, 2000

## Promoting Physical Activity: Recommendations from the *Guide to Community Preventive Services*

E. Kahn

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**Objective:** To promote knowledge and awareness of successful, cost-effective approaches that may be used to reduce population levels of physical inactivity.

**Setting:** The *Guide to Clinical Preventive Services* has become an important tool in helping health care providers decide which preventive service are recommended as part of “best practices” care in clinical settings. The *Guide to Community Preventive Services*, developed under the auspices of the U.S. Public Health Service, seeks to provide similar information about “best practices” for population-level interventions in community settings.

**Intervention:** We reviewed interventions that employed strategies that fell into several domains: 1) interventions aimed at creating or modifying the physical environment to support and enhance physical activity; 2) organizational and policy changes or implementations to support increased physical activity at population levels, and 3) interventions aimed at changing the social environment to provide increased social support for physical activity behaviors.

**Outcomes:** We analyzed all available literature for selected intervention strategies using systemic and objective methods. Each study was evaluated for quality of execution and suitability of study design. Bodies of evidence were then used by the Task Force on Community Preventive Services to make recommendations for further research and for the adoption of community-oriented interventions to promote physical activity.

**Conclusion:** The *Guide to Community Preventive Services* provides a valuable tool for health planners within managed care organizations and at state and local health departments in deciding which interventions have proven effectiveness in decreasing levels of physical inactivity.

**Learning Objective:** Participants should be able to identify the intervention strategies in the *Guide to Community Preventive Services* and effective policies and interventions to modify the physical and social environment in ways that increase levels of physical activity.

Friday, December 1, 2000

**Applications from the Physical Activity Chapter,  
*Guide to Community Preventive Services***

K.E. Powell

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*The Guide to Community Preventive Services: Systematic Reviews and Evidence-Based Recommendations* is being developed to provide public health professionals with information about “best practices” for population-level interventions in community settings. Topics being reviewed by the physical activity chapter team include 1) Physical Environment Changes, 2) Organization-Based Policy Interventions, 3) Communitywide Interventions and Policies, 4) Public Information/Social Marketing Campaigns, and 5) Social Support Mechanisms. Examples of programs recommended by the guide, such as “Point of Decision Prompts,” will be described. Emphasis will be placed on how the programs were implemented and the settings in which they were successful. Information will also be provided, where possible, about applicability to subpopulation groups, other potential benefits and harms associated with the intervention, and barriers to implementation identified in the literature.

**Learning Objectives:** At the end of this session, participants will be able to describe specific physical activity promotion programs recommended by the *Guide to Community Preventive Services* and discuss one or more practical suggestions for implementing recommended programs in each of the five topic areas.

Friday, December 1, 2000

## Mobilizing a Community Response to Childhood Obesity

*P. Paviour, B. Yager*

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**Objective:** To engage the energy of a community to seek environmental and policy solutions to childhood obesity.

**Setting:** In 1999, the Thomas Jefferson Health District in Charlottesville, Virginia, convened a task force of community, health care, education, recreation, and human service representatives to address childhood obesity.

**Intervention:** The Childhood Obesity Task Force reviewed local obesity prevalence data in schools, identified and prioritized contributing factors to childhood obesity, examined policies that affect school physical education and food service, reviewed programs that address nutrition or physical activity, and surveyed parents of more than 270 children about their children's health behaviors.

**Outcome:** On the basis of these findings, the Task Force will advocate for policies and programs that increase the potential for more physical activity through schools and community sites.

**Conclusion:** Obese children are at great risk of developing chronic diseases; however, contributing environmental and social factors are too broad to be addressed by a single agency. By taking the Task Force through an investigative and assessment process, members were activated to tackle policy and program changes that can impact childhood obesity.

**Learning Objectives:** Participants will be able to 1) articulate the rationale for making childhood obesity a community priority, 2) describe the process for empowering a community-based task force to address a multifactorial public health issue, and 3) identify at least two strategies that a community can develop to impact childhood obesity.

Friday, December 1, 2000

## Walk Our Children to School Day: A Model of Success

*E. Dougherty, R. Fields, L. Creech, S. Bullock*

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**Objective:** To involve local policy makers in improving the walking environment around schools.

**Setting:** Walkable South Carolina Committee of the South Carolina Governor's Council on Physical Fitness (SCGCPF), South Carolina Department of Health and Environmental Control (SCDHEC), 28 public schools across South Carolina.

**Intervention:** Minigrants to support Walk Our Children to School Day were provided to schools by the Walkable South Carolina Committee and were funded by SCGCPF and SCDHEC. The fundamental concept of the event was that parents, teachers, students, and policy makers would walk to school together to raise awareness of environmental barriers to walking.

**Outcome:** Twenty-eight schools were funded; 11,000 students participated; 38 state and local officials participated, including 9 mayors, 5 members of county/city councils, 16 police officers, and others. There were 18 newspaper articles written about the event, and policy makers participated in 86% of the events. In one instance, a petition for sidewalks was presented to the local government.

**Conclusion:** A special event can be used successfully to engage policy makers to become aware of the need to change policy and environment to promote physical activity.

**Learning Objective:** Participants will understand how to identify and access resources to support Walk Our Children to School Day in their communities.

Friday, December 1, 2000

## California Children's Healthy Eating and Exercise Practices Survey (CalCHEEPS): Food Sources and Dietary Influences

*A. Keihner, S. Foerster, S. Sugerman, M. Oppen, J. Gregson, S. Jolly, M. Fierro, S. Wu, P. Goel*

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**Objective:** To describe dietary intake among school-aged children with specific focus on two food sources, school meal programs and fast food.

**Setting:** CalCHEEPS is a cost-effective, replicable approach to collecting dietary intake and physical activity data for state-level nutrition surveillance. CalCHEEPS is sponsored by The California Endowment and the U.S. Department of Agriculture.

**Method:** The survey, designed for children aged 9–11, uses a market research method, combining a mail survey with a telephone follow-up. In the spring of 1999, the parent-assisted 2-day diet and exercise diary was collected by mail from 814 children. The follow-up telephone survey contacted 394 children for key attitude and knowledge information.

**Result:** Response rates for the mail survey were 41% and for the telephone survey, 51%. Of the children surveyed, 15% had school breakfast, 45% ate school lunch, and 36% reported eating two or more fast food meals in the past week. Participation in both school meal programs was associated with greater fruit and vegetable consumption. Children eating school lunch consumed more fluid milk, less soda, and fewer high-fat snacks. Fast food was related to greater soda and high-fat snack consumption. One-quarter of children reported having a school cafeteria with fast food, and 24% reported having vending machines at school with either soda or candy. Of children with body mass index (BMI) >85<sup>th</sup> percentile, 47% reported eating two or more fast food meals in the past week, compared with 30% of children with BMI ≥85<sup>th</sup> percentile.

**Conclusion:** Incorporating the findings into program planning and policy with elected school district officials and legislators will be discussed.

**Learning Objective:** Participants should be able to describe a practical survey method for the nutrition monitoring of school-aged children and recognize both positive and adverse dietary practices associated with consumption of school meals and fast-food among California children.

Friday, December 1, 2000

## School Connections: Promoting Coordinated School Health Programs

*N. Murray, K. Sheppard, S. Weber, S. Kelder*

**Objective:** To improve the capacity of school personnel to implement and support Coordinated School Health Programs (CSHP) through preservice and inservice training and to advocate for CSHP.

**Setting:** Institutes of Higher Education in Texas and state and local health and education agencies.

**Intervention:** Curriculum modules on CSHP were developed for faculty in institutes of higher education to use in courses for school administrators and teachers of health and physical education, elementary school teachers, and nutritionists. Modules are adaptable for minicourses on CSHP for delivery by Education Service Centers to school administrators for CEUs and for presentations to PTA groups, district administrators, and others. Curriculum modules use state-of-the-art technology incorporating video clips into PowerPoint presentations packaged on a CD-ROM. The presentation includes the background and theory behind CSHP, a concrete example of an exemplary CSHP (CATCH), and an evaluation tool for school- and district-level implementation of CSHP (School Health Index).

**Outcome:** During the first year of the project, curriculum modules were developed and distributed to health, pedagogy, nutrition, and educational administration faculty at five universities in Texas. In addition, 48 CD-ROM presentations were distributed upon request from Texas Department of Health staff and advisory board members, staff from other state departments of health, local and state education agencies, and staff from the American Cancer Society and National Governors' Association.

**Conclusion:** The curriculum modules are welcomed by faculty that prepare schoolteachers and administrators, and the CD-ROM presentation may be an advocacy tool for CSHP that demonstrates how to implement CSHP.

**Learning Objectives:** Participants will be aware of curriculum modules on Coordinated School Health Programs (CSHP) for preservice and inservice training of schoolteachers and school administrators and will appreciate the importance of presenting concrete examples of effective CSHP and evaluation tools for promoting implementation of CHSP in a technologically advanced format.

Friday, December 1, 2000

## Outcomes of a Tailored Health Promotion Program for Female Blue-Collar Workers

*M. Campbell, I. Tessaro, B. DeVellis, S. Benedict, L. Belton, K. Kelsey, A. Sanhueza*

**Objective:** To assess the effects of the Health Works for Women (HWW) program, funded by the Centers for Disease Control and Prevention (CDC), on improving health behaviors among rural female blue-collar employees.

**Setting:** Few worksite intervention programs have specifically focused on lower income and minority women, many of whom are employed in blue-collar occupations in smaller industries (< 500 employees) that do not offer comprehensive health promotion programs. Women working in these companies tend to have elevated health risks due to a high prevalence of unhealthy behaviors including poor diet, physical inactivity, and smoking.

**Method:** Nine small to mid-sized workplaces were randomly assigned to either intervention or delayed intervention conditions. The 18-month intervention consisted of computer-tailored magazines and a Natural Helpers program in the workplace.

**Result:** Approximately 76% of the 859 baseline respondents completed the follow-up surveys at 6 and 18 months. At 6-month follow-up, the intervention group increased fruit and vegetables ( $P < .01$ ), decreased fat intake ( $P = .01$ ), and increased strengthening and flexibility exercise ( $P < .05$ ) compared with the delayed group. At 18-month follow-up, the intervention group's increase in fruits and vegetables was 0.7 servings, and improvement in flexibility exercise was observed compared with the delayed group. Smoking cessation rate was similar (3%) in both study groups. A total of 86% of intervention women reported recall of the tailored magazines, and most were exposed to the Natural Helpers program.

**Conclusion:** The HWW project was a successful model for achieving certain health behavior changes among blue-collar women.

**Learning Objective:** Participants should be able to describe the HWW intervention model and discuss the primary outcomes, strengths, and limitations of the study.

Friday, December 1, 2000

## Using Partner and Target Audience Input to Develop Stigma-Reducing Epilepsy Materials for Teens

*K. Harben, P. Price*

**Objective:** Research has shown that social marketing campaigns are more likely to be successful in changing behavior when they are developed with the input and support of the people to whom they are targeted.

**Setting:** In September 1997, the Centers for Disease Control and Prevention (CDC) the national Epilepsy Foundation (EF) initiated a needs assessment which identified the need for materials to raise awareness about epilepsy and to reduce the stigma associated with the disease. The CDC/EF workgroup identified adolescents aged 15-19 years as an underserved population. A literature review further identified teens who had relatively well-controlled seizures as being at greater risk of having low self-esteem and feeling stigma than teens having less well-controlled seizures.

**Intervention:** A series of telephone focus groups with adolescent boys and girls in February, April, and May 1999 confirmed that teens would be receptive to materials that helped them decide whether or not to share details of their condition with others and that could be used to educate others in their lives about what it is like to live with epilepsy.

**Outcome:** Creative concepts for a documentary video and supporting materials (facilitator's guide, fact sheets, resource guide, and a diary) were developed and tested among teens attending the 1999 national meeting of the Epilepsy Foundation in Seattle. Using feedback from the teens, a final documentary video and supporting materials were produced in January 2000.

**Conclusion:** These materials are currently being used by teens attending epilepsy camps and teen groups sponsored by the Epilepsy Foundation. Pilot test results suggest this is an effective approach for stimulating discussion of important life issues among teens having epilepsy. Partner engagement and target audience input ensure relevance of issues discussed and appropriate tone and content and create a ready channel for dissemination. Future plans include dissemination in school settings.

**Learning Objective:** Participants will learn the steps involved in working with partners to identify and select target audiences and develop communication materials based on partner and audience input.

Friday, December 1, 2000

## Using Media Advocacy to Address Childhood Obesity Issues: Unhealthy Fast Food in Public High Schools

*P. Agron, V. Berends, A. Purcell, E. Takada*

### Oral Presentations

**Objective:** Media advocacy was used to address the problem of the high prevalence of unhealthy fast food in California public high schools, which may be contributing to the rise in childhood obesity.

**Setting:** Working with teenagers, local community coalitions, and a public relations agency, California Project LEAN's (CPL) *Food on the Run* (FOR) program launched a statewide media advocacy campaign to confront unhealthy fast foods at schools.

**Intervention:** Key to the media advocacy campaign was a press conference driven by the release of findings from the *2000 California High School Fast Food Survey*. Some compelling findings: 95% of responding districts reported selling fast foods as a la carte items; the most common fast foods sold are pizza (87%), cookies (86%), chips (84%), and burritos (83%); an overwhelming majority of districts (72%) allow fast food and beverage advertising on campus. The press conference also highlighted policy recommendations to stimulate their implementation. This campaign included both teenaged and adult spokespersons who led the local press on media tours and attended editorial board meetings.

**Outcome:** Significant policy outcomes occurred at the local and state levels involving legislation, school district policies, coalition action, and strengthened relationships. Print media coverage in California spanned 4 months and totaled a readership of more than 26.5 million. In addition, a media content analysis was conducted to evaluate the effectiveness of the advocacy efforts.

**Conclusion:** Media advocacy is an effective approach to educate and inform the public, policy makers, school administrators, and health professionals of the need for environmental/policy changes to support access to healthy eating at schools.

**Learning Objective:** Participants will learn how media advocacy strategies are used to facilitate policy and environmental changes that support healthy eating behaviors.

Friday, December 1, 2000

## The Motivation of an Isolated Worksite to “Eat Smart Move Smart”

*T. Sory*

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**Objective:** To pilot a staged-based Social Marketing program in an effort to increase readiness to change and physical activity and nutritional attitudes and behaviors in a clinical worksite setting.

**Setting:** A local health department public health clinic.

**Intervention:** Questionnaires were sent to 300 Salt Lake County employees to determine readiness to change. Using Social Marketing methods, participants were selected to participate in focus groups to establish what they wanted from a health promotion program focusing on physical activity and nutrition. A pilot 8-week program was designed and implemented in a clinical worksite setting that has not participated in health promotion activities in the past.

**Outcome:** Thirty-one people started this program, and 20 finished. The average participant progressed from the preparation stage to the action stage regarding eating a combination of 5 or more fruits and vegetables per day. Vegetable consumption increased from 5 to 6 times per week to 14 times per week, and fruit consumption increased from 5 to 6 times per week to 21 times a week. Moderate physical activity increased from 2 days per week to 3, and strenuous activity increased from 1 day per week to 3.

**Conclusion:** A stage-based social marketing program can increase an individual's readiness to change and increase physical activity and nutritional attitudes and behaviors.

**Learning Objective:** This presentation will demonstrate how a stage-based social marketing program can significantly increase physical activity and nutritional attitudes and behaviors in a clinical worksite setting.

Friday, December 1, 2000

## Developing a Statewide Strategic Plan to Increase Opportunities for Physical Activity

*C. Crump, J. Emery, C. Thomas*

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**Objective:** To develop an approach to improve physical activity levels in North Carolina.

**Setting:** Physical inactivity is recognized as a public health issue. Traditional health education efforts to increase physical activity levels have rarely been successful. In 1996, 86% of adults in North Carolina did not achieve recommended levels of physical activity.

**Intervention:** Be Active North Carolina is a statewide initiative to increase physical activity levels by targeting change at the societal, community, and organization levels. The strategic plan details groundwork, policy, and media strategies to achieve three goals and increase participating organizations' capacity to implement policy and environmental improvements. Implementation involves a certification process that recruits affiliate and partner organizations, provides training, guides an action planning process, and documents policy and environmental change. Regional leadership in six regions will facilitate diffusion to all 100 North Carolina counties. A grant program supports local implementation. A computerized evaluation system facilitates program staff monitoring of progress and guides strategic recruitment and technical assistance.

**Outcome:** With \$10 million support from public sector funds and an initial \$1 million dollars of private funding, Be Active North Carolina is positioned to diffuse effective activities that will increase opportunities for physical activities. Through the certification process, more than 50 affiliate and partner organizations are already affecting policy and environmental improvements.

**Conclusion:** To affect policy and environmental improvements to increase physical activity opportunities, it is necessary to focus on multiple levels of intervention. A statewide strategic approach can build and coordinate local capacity and action planning.

**Learning Objective:** Participants should be able to describe the value of a strategic plan to guide and coordinate a statewide plan to improve physical activity.

Friday, December 1, 2000

## Furthering the Vision of Missouri Women Living Healthier, Living Longer, and Developing Their Full Potential

*J. Thompson, S. Gilmore, E. Simoes, M. Schootman*

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**Objective:** To provide a broad set of indicators that describe the burden of specific diseases and conditions among Missouri women, including differences among selected demographic subgroups (e.g., racial minorities, rural women) and over time, and to make these indicators available in different formats for use by policy makers, program staff, health departments, and community groups.

**Setting:** The Missouri Department of Health's (MDOH's) Office of Surveillance, Research, and Evaluation and the Office on Women's Health (OWH) are collaborating to produce a series of reports, fact sheets, and PowerPoint presentations that will provide statewide, regional, and county-specific incidence, prevalence, and mortality data. Much of the data analysis and report writing will be carried out under contractual arrangement with an academic institution. The Women's Health Council, advisory to the OWH, will use the reports in studying these issues and developing policy recommendations and strategies.

**Outcome:** Women's Health Report No. 1, *Cancer Deaths Among Missouri Women: Past, Present, and Future*, was published in June 2000. By December, additional reports on mortality from other chronic diseases, cancer incidence, and prevalence of behavioral risk factors will be available on MDOH's Web site. Presentations will be made statewide.

**Conclusion:** The Women's Health Reports provide a comprehensive view of women's health issues and highlight differences in the burden of various chronic diseases by race, place of residence, and age. Data contained in these reports can lead to more effective interventions for improving the health of women; better coordinated and more collaborative programs; and changes in public policy that will positively affect the lives of women.

**Learning Objective:** Participants should be able to describe the burden of lung, colorectal, and breast cancer among Missouri women and recognize disparities based on race (African American vs. white) and place of residence (rural vs. urban). They should also be able to use the reports for communicating the status of women's health and creating health improvement plans.

Friday, December 1, 2000

## The Status of Physical Activity in South Carolina: A Report for Public Health Practitioners

*R. Fields, M. Greaney, K. Powell, R. Welsh*

**Objective:** Provide state-level epidemiological data on physical activity to public health practitioners to guide community-level interventions.

**Setting:** The South Carolina Department of Health and Environmental Control (SCDHEC) contracted with the Prevention Research Center (USC PRC) at the University of South Carolina School of Public Health (SPH).

**Intervention:** A multidisciplinary writing team was formed to produce the report, “Good Health: It’s Your Move – Physical Activity in South Carolina.” An advisory committee created an outline for the report and identified a target audience of public health workers and policy makers. The writing team tailored the language in the report to the target audience. The report examines the incidence of physical inactivity and associated costs, and also discusses the impact of policy and environment on physical inactivity.

**Outcomes:** The Commissioner of SCDHEC and the Dean of the USC SPH released the report in May 1999 through a news conference. Media attention was intense, and included 25 newspaper articles and many broadcast reports. Seven hundred copies of the report were distributed through organizations represented on the Advisory Committee and through local health department physical activity promotion staff. The report was also published on the PRC’s Web page. The report was cited in academic publications as well as in lay fact sheets, and was used to orient public health staff and coalition volunteers.

**Learning Objectives:** Participants will be able to undertake the dissemination of epidemiological data to public health practitioners, and will understand the importance of including stakeholders in determining public health information needs.

Friday, December 1, 2000

## **Toward a National Cardiovascular Diseases Surveillance System in Canada**

*A. Wielgosz, G. Taylor*

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**Objective:** To coordinate and enhance federal, provincial, and non-government organizational cardiovascular disease surveillance initiatives in Canada.

**Intervention:** Representatives from key federal departments and provincial public health epidemiology offices as well as from major cardiovascular organizations and societies were invited to participate in a national network meeting. Working groups on data management, dissemination, and evaluation were established with progress overviewed by a coordinating committee that has representation from key stakeholders. Participation in the preparation of the Year 2000 edition of a biennial publication on the epidemiology of cardiovascular diseases in Canada was broadened to include more organizations.

**Outcome:** By involving the major national cardiovascular organizations as well as key governmental departments under the leadership of the Centre for Chronic Disease Prevention and Control (formerly the Laboratory Centre for Disease Control), Health Canada, an opportunity has been created for a more efficient strategy for the national surveillance of cardiovascular diseases in Canada. This model of activity is being applied to the development of surveillance systems for other noncommunicable diseases as well.

**Conclusion:** The importance of timely information on the epidemiology of cardiovascular diseases is widely acknowledged. Continued participation of the many stakeholders in a stepwise approach toward a national surveillance system and maintenance of credibility in the vision of the leadership are critically dependent on adequate resources for even a minimal action plan.

**Learning Objective:** Participants will be provided an insight to the strategy used in Canada, thus far successful, to create a national cardiovascular disease surveillance system within a noncommunicable disease framework.



**Poster  
Sessions**

Wednesday, November 29, 2000

## Visual Communications Solutions

*M. C. Barringer*

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This poster illustrates common design problems and solutions associated with preparing scientific visual presentation materials. Participants will see examples of effective design of charts and graphs, use of color, typeface choices, and other issues related to design. The poster will show through examples how and when (and when not) to incorporate graphics and photos into presentations, as well as how to use simple graphics instead of words to illustrate messages successfully. Handouts will be available.

Wednesday, November 29, 2000

## Using Media to Meet the *Healthy People 2010* Objectives for Cervical Cancer

M. Matthew

**Objective:** To reduce cervical cancer morbidity and mortality through the use of paid media stressing the importance of early detection.

**Setting:** Commonwealth of Pennsylvania. Each year in Pennsylvania, approximately 220 women die of cervical cancer. 5,000 women die of cervical cancer each year in the United States. The Pennsylvania Department of Health is committed to eliminating cervical cancer deaths in Pennsylvania. The Papanicolaou test is a widely used, effective tool to screen for cervical cancer, detecting abnormal cellular changes that are not yet cancerous and can be treated before becoming cancer.

**Intervention:** The Pennsylvania Department of Health has developed a powerful cervical cancer awareness media campaign titled “Zero.” The campaign uses television, radio, and print to encourage women to get regular screenings for cervical cancer. The television ad features women of all ages and races and emphasizes that cervical cancer does not discriminate. It also states that if women had regular screenings for cervical cancer, there would be “zero” cervical cancer deaths. This statewide campaign is in its second airing.

**Outcome:** Calls are monitored to determine how callers heard of the referral service number. The number of calls to the referral service has increased due to the media campaign.

**Conclusion:** Using paid media advertisements is an effective method to reach a wide audience.

**Learning Objective:** Participants will be able to describe how media are working in Pennsylvania to achieve the *Healthy People 2010* cervical cancer objectives.

Wednesday, November 29, 2000

## Lessons Learned From the Oatmeal Smart Heart Challenge to Improve Health

*C. Kapica*

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**Objective:** More than 40 clinical studies prove that oatmeal can help lower blood cholesterol levels and reduce the risk for heart disease. The Quaker Oats Smart Heart Challenge was a 30-day community program designed to encourage people to help lower their blood cholesterol levels by making a simple dietary change—eating a bowl of oatmeal, or an equivalent amount of oats, daily.

**Method:** Among the four towns involved in the program during 1998–1999, 414 men and women, aged 19–92 years, participated. Participants were instructed to consume the equivalent of 3 grams of soluble oat fiber daily (equivalent to 1½ cups of cooked oatmeal).

**Result:** Among the four towns involved, total blood cholesterol levels dropped an average 7%. Ninety-five percent of the participants indicated that they were inspired to make additional lifestyle changes, such as increasing physical activity and reducing dietary fat consumption. Individual success was greater with support from friends, neighbors, or a personal coach; among participants with a higher initial blood cholesterol level; and during the cold season of the year.

**Learning Objective:** A simple dietary change, such as eating a bowl of oatmeal, can be a catalyst for healthy lifestyle behavior change. The cholesterol-lowering benefits of oatmeal consumption are evidenced not only in clinical studies, but they also apply to real people in real life.

Wednesday, November 29, 2000

## Decision Making for Prostate Cancer Screening: A Qualitative Study of Men's Knowledge, Attitudes, and Values

*J.M. Kraft, C. Becker, C. Jorgensen, C. Green*

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**Objective:** To identify men's knowledge of, attitudes toward, and values about prostate cancer screening.

**Setting:** Several guidelines recommend that men be given information to make informed decisions about prostate cancer screening. Informed decision-making interventions provide information, assistance in clarifying values, and support for decision making. To date, little research has explored men's information needs and values about prostate cancer screening.

**Method:** During the past year, we conducted 12 focus groups with African American (aged 40–70 years) and white and Hispanic (50–70) men. Using an informed decision-making model, we asked about their knowledge of and attitudes toward screening and the screening controversy, and values about screening outcomes, including diagnostic testing, treatment, and treatment outcomes.

**Result:** Men were unaware of the controversy about prostate cancer screening. Although they were often unsure of the purpose and interpretation of the prostate-specific antigen measurement, they equated it with other screening tests; they believed early detection and treatment reduce mortality. Because of their belief in the benefits of screening and their perception that a blood test is noninvasive, men reported that they would screen for prostate cancer under most conditions. Once introduced to the screening controversy, most men reported that they would screen for prostate cancer because they viewed screening and treatment as separate decisions.

**Conclusion:** Our data suggest that men are not aware of the screening controversy. Providing men information about that controversy might not discourage them from screening, but it might prepare them for decision making should they have a positive screening result.

**Learning Objective:** Participants should be able to list the elements of informed decision making and describe men's knowledge of, attitudes toward, and values about screening, diagnosis, and treatment for early-stage prostate cancer.

Wednesday, November 29, 2000

## Impact of a Computer-Tailored Maintenance Intervention on Dietary and Physical Activity Beliefs and Attitudes

A. Jacobs, A. Ammerman, K. Tawney, S. Aytur, B. Garcia, L. Macon, W. Rosamond

**Purpose of the Program:** To evaluate the effectiveness of an innovative 1-year maintenance program designed to assist low-income adult women at risk for cardiovascular disease with improving and maintaining changes made in the North Carolina WISEWOMAN risk factor intervention program.

**Method:** After 1 year of participation in the intervention program, 22 health departments were randomized to maintenance intervention or usual care (UC). Women in the intervention group received six computer-tailored health mailings and two telephone calls from health department staff. The UC group received usual health department care. Preintervention and postintervention surveys were compared to assess change in health beliefs and attitudes.

**Result:** Mean age of participants was 61; 58% were white, 38% were African American; and 22% had less than a high school education. Preliminary results indicate that both groups improved or maintained several positive health beliefs and attitudes. The maintenance intervention group showed significant net improvements in scores measuring low-fat eating self-efficacy (+.92,  $P < .001$ ), motivation for healthy eating (+1.2,  $P < .001$ ) and physical activity (+1.3,  $P < .001$ ), social support (+.79,  $P < .001$ ), forward stage movement for diet (+1.5,  $P < .001$ ) and physical activity (+1.97,  $P < .001$ ). The UC group maintained high scores for motivation and self-efficacy for low-fat eating; and demonstrated significant net improvements in social support (+.33,  $P < .05$ ) and diet stage of change (+.43,  $P < .03$ ) similar to that seen in the intervention group.

**Conclusion:** Preliminary results suggest that women in the maintenance intervention group improved in several psychosocial variables likely to influence improvements in diet and physical activity behavior for cardiovascular disease risk reduction.

**Learning Objective:** To understand the benefits of a computer-tailored nutrition and physical activity maintenance intervention on improving health beliefs and attitudes.

Wednesday, November 29, 2000

## Impact of Diabetes on Well-Being Among American Indians in Oklahoma

*D.W. Smith, M.R. Page, V. Valdmanis*

**Purpose:** To assess the impact of diabetes on well-being among American Indians.

**Background:** Previous reports have demonstrated the high costs of diabetes but have not investigated other measures of well-being, particularly among American Indians.

**Method:** The Native American Behavioral Risk Factor Survey, a random telephone survey conducted in Oklahoma from 1994 through 1997, was used to measure and test differences between people with diabetes and those without diabetes (matched by age and sex) on measures of well-being: disability days, general health status, marital status, access to medical care, and employment, as well as income.

**Result:** People with diabetes were worse off on every measure of well-being, most of them statistically significant. Almost half (46%) of people with diabetes reported at least one disability day for physical reasons versus 29% for controls. General health status was lower among people with diabetes, 15% reporting excellent or very good health, less than half the proportion among matched controls, 36%. Among people with diabetes, 18% reported being unemployed or unable to work compared with 12% among controls. Income was lower among people with diabetes; 70% reported incomes less than \$20,000, compared with 55% for controls.

**Conclusion:** Diabetes had a broad-spectrum impact on the well-being of patients, adversely affecting multiple indicators of well-being, which affect work and social activity. The social and economic impact of diabetes on its victims is substantial.

**Learning Objective:** Participants should be able to describe the impact of diabetes on social well-being.

Wednesday, November 29, 2000

## Relationship Between Arthritis and Obesity, by Sex, Using the Utah Health Status Survey

*R.C. Bullough, R. Tanner, M. Friedrichs, L. Larsen*

**Purpose of the Program:** To assess the relationship between arthritis and obesity, by sex, in Utah.

**Background:** Arthritis is the number one contributor to disability in the United States and arthritis prevalence is increasing. Relationships between arthritis and associated conditions/risk factors remain unclear.

**Method:** The Utah Health Status Survey is a random household telephone survey conducted every 5-years. These data represent the latest survey, conducted in 1996, when 6,300 households were surveyed. In addition to other health-related questions, respondents were asked if they, or anyone in their household, were being treated for arthritis. Body mass index ( $BMI = \text{weight [kg]} / \text{height [m]}^2$ ) was calculated from the same survey for adults ( $\geq 18$  years) who answered yes. Arthritis prevalence, by sex, was calculated for 3 body mass groups: 1) normal ( $BMI \leq 25$ ); 2) overweight ( $BMI = 26-29$ ); and 3) obese ( $BMI \geq 30$ ).

**Result:** Arthritis prevalence increased with increased BMI in both men and women. Also, women demonstrated higher arthritis prevalence than men at every BMI.

**Conclusion:** Arthritis prevalence appears to increase with increased BMI in men and women. Also, at every BMI, women have a higher rate of arthritis than men. It is important to note, however, that it remains unclear if obesity contributes to arthritis or if inactivity associated with arthritis contributes to obesity.

**Learning Objective:** Participants should be more aware of the relationship between arthritis, obesity, and sex.

Wednesday, November 29, 2000

## A Community Approach to Promote Healthy Eating and Physical Activity in Culturally Diverse Communities

J.C. Gustavson, J. Asarian-Anderson, N. Tayag, C. Agy

**Purpose of the Program:** To provide nutrition and physical activity education to help decrease diet-related chronic disease among families that are isolated by language, economics, and cultural barriers in Los Angeles County.

**Setting:** A collaboration of the County of Los Angeles, Department of Health Services Nutrition Program, and Hathaway Family Resource Center used the train-the-trainer model to develop and train Promotora Comunitarias to teach a nutrition curriculum to members of their community.

**Intervention:** Ten experienced promotoras were trained to deliver culturally and linguistically sensitive nutrition and physical activity messages to their community in northeast Los Angeles. The nutrition curriculum is being presented at churches, schools, and community centers to Latino families who have difficulty receiving this education from traditional sources. To date, 40 classes per month are being delivered in this community.

**Outcome:** A community and public health partnership combined promotoras, professional health and nutrition staff, and a research analyst to deliver nutrition and physical activity curriculum and to document program effectiveness using process, outcome, and impact evaluation methods.

**Conclusion:** This model makes it possible to increase what the county program can accomplish with its limited staff and budget in terms of the cultural diversity and number of persons receiving outreach. Not only does this partnership increase community outreach, but it also makes direct outreach possible.

**Learning Objective:** Participants should be able to identify the economic and cultural advantages of using community peers in the train-the-trainer model to deliver health messages.

Wednesday, November 29, 2000

**Analytic Methods for Community-Based Assessments***T.E. Aldrich, N. Scruggs, Y. Huang*

**Purpose of the Program:** Development of community-based statistical indicators is an emerging application in public health assessment. Methods for surveillance design and data analyses are needed for this technology to advance.

**Background:** One pattern for analysis and comparison represents the Council of State and Territorial Epidemiologists (CSTE) Indicators for Chronic Disease, published by CSTE in September 1999. Many of these indicators are taken from morbidity and mortality outcomes; some are behavioral prevalence rates. A conventional approach to assessing such cross-cutting issues as obesity or racial disparity is to perform multiple variable logistic analyses, with ecologic form to identify high-risk populations. Disparity is a local construct, and local programs are applied to mitigate disparate circumstances. Community-based indicator surveillance can involve multiple-level analyses, e.g., statewide, regions within a state, counties, and, for some metrics, even zip codes. The 2000 census offers a profound opportunity for census tract-based analyses. On the basis of such community-level analyses, local-directed surveys may then be completed with community-defined variables to validate large-scale findings, assess local needs, and evaluate local interventions.

**Method:** We have used large-level statistically significant differences to identify principal distributions, establish magnitude of effects, and identify health-related disparity correlates. We then turn to local data analyses (small-area) for one metric to assess whether corresponding local differences can be validated. This process involves “borrowing power” from the large analysis to establish precise local metrics. One aid for these methods has been periodic finding of very large differences. We do not use 0.05 levels alone for decision making or pattern identification. We rely on direction of effects and magnitude of effects similar to the approach used with meta-analyses of small experiments. With these local analyses, still there is not sufficient detail to evaluate local programming impacts (e.g., locus of control issues), or personal perspectives (e.g., evidence of attitude change). Local data collection efforts are mounted by collaborators, with the use of consistent questions to ensure comparability of data formatting.

**Result:** Examples include our work with diabetes risk associated with family dietary practices in Columbia, South Carolina, and assessment support for our local REACH 2010 project. Data instruments, maps, and graphics will be presented to illustrate these methods, and representative findings.

**Conclusion:** Epidemiologic methods must advance to provide support for the assessment of community-based interventions. Indicator methods and multivariate geographically referenced methods are two options.

**Learning Objective:** Participants will be able to describe productive community-based assessment techniques using statistical indicators.

Wednesday, November 29, 2000

## Partnering With the American Indian Community for Biomedical Research

*J. Eichner, F. Yeh, K. Cravatt, E. Rhoades*

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**Purpose:** To determine the prevalence of asthma, a growing public health concern, among American Indian young people at Riverside Indian School in Anakarko, Oklahoma.

**Background:** Little work has been done to screen American Indian young people for asthma.

**Method:** Because of often expressed negative feelings about research and researchers in the American Indian community, workers from the Native American Prevention Research Center (NAPRC) have adopted an approach that asks rather than imposes and gives as well as takes. An example of this philosophy is "Health Day." The NAPRC sponsored a health-related Saturday school with officials from Riverside Indian School overseeing the event. Because of our milder, service-oriented approach, our efforts to screen for asthma resulted in 352 students participating, a response rate of 98.6% (352 of 357 students were screened).

**Result:** This descriptive epidemiologic study obtained data from a modified international survey, a short video health questionnaire, and lung function tests on 352 American Indian young people aged 9 to 21 years.

**Conclusion:** Because we as researchers have demonstrated personal investments in Riverside Indian School, the teachers, administrators, and students have invested trust in us. Special efforts to ensure maximal involvement of school officials in initial and subsequent planning and implementation of the testing, including spirometry, resulted in true participatory research and an unusually successful outcome.

**Learning Objective:** Participants will be able to describe ways to partner creatively with communities.

Wednesday, November 29, 2000

## Informing State Policy Makers Using a Web-Based Clearinghouse of State Best Practices in Cancer Control and Prevention

*M. Fierro, N. Baskey*

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**Purpose of the Program:** To coordinate cancer prevention and control efforts among state policy makers, maximize resources, and achieve desired outcomes by providing state cancer control program information in one central Web-based clearinghouse.

**Setting:** The National Governors' Association Centers for Best Practices developed a Web-based clearinghouse of state cancer control and prevention programs. A small advisory committee, made up of state and Centers for Disease Control and Prevention (CDC) cancer experts, guided this project. Funding was provided by a cooperative agreement with CDC.

**Intervention:** Surveys were sent to states and territories querying best practices in cancer control and prevention in six areas: education and prevention, early detection and screening, intervention and treatment, surveillance, research, and linkages with community organizations. This information was summarized and posted on-line by state and topic area along with general cancer information.

**Outcome:** More than 700 "hits" to the cancer clearinghouse Web site were recorded in the first 2 months, and positive feedback was received from states.

**Conclusion:** A Web-based clearinghouse of cancer practices in states allows governors and their advisors to easily access best practice cancer program information of other states and to compare cancer incidence and mortality in their state with those in other states. By aggregating states' program information, the need for strengthening of treatment and research components is apparent.

**Learning Objectives:** Participants will be able to understand the methodology and utility of collecting data from state policymakers, the need to communicate essential information to governors and their staffs, and the weaknesses and strengths of current state programs.

Wednesday, November 29, 2000

## Triangulation of Data From Texas Key Informants for Tobacco Intervention Planning

*P. Gingiss, R. Murray, N. Gottlieb, R. Weinstein*

**Purpose of the Program:** To collect key opinion leader data for tobacco intervention planning.

**Background:** Information from key informants can help program planners judge the degree of support for state tobacco control efforts and design future programming.

**Method:** Survey data from the 19 Texas Tobacco Settlement Pilot research study units were collected from school principals (response rate: 76.6%) and lead health educators (response rate: 75.4%) from 160 schools in spring 2000; 20 interviews of state and regional voluntary health agency leaders regarding “what’s happening” and “who are the local leaders in tobacco control” during June–July 2000; and 300 interviews of local government, business, education, health, youth, and ethnic community leaders based on the 1996 California Gallup Opinion Leader Telephone Questionnaire during July–August 2000.

**Result:** Almost all principals (97.0%) reported enforcing school antitobacco policy, and 64.7% reported instruction on tobacco use prevention education (TUPE). Principals indicated low/no activity in following family involvement in student TUPE and policy (79.4%), teacher training for TUPE (75.2%), or student (65.6%) and family and staff (64.9%) cessation support. Almost half of the teachers reported that TUPE was either infused into one or more lessons (32.6%) or delivered as a single lesson (7.6%).

**Conclusion:** Tobacco prevention and cessation programs are not being delivered in accordance with Centers for Disease Control and Prevention Best Practices. Data from the key informant surveys will provide an estimate of tobacco control activity in study communities and estimates of public support for tobacco interventions.

**Learning Objective:** Participants will be able to describe key findings from opinion leader tobacco surveys at the state, regional, and local levels and apply data from multiple sources to the design of intervention programs for tobacco control and prevention.

Wednesday, November 29, 2000

## The National Folic Acid Campaign: Evaluating Effects of a Social Marketing Campaign

*K.L. Daniel, M. Iodice, J. Mulinare*

**Setting:** The Centers for Disease Control and Prevention (CDC), the March of Dimes, and the National Council on Folic Acid have organized the National Folic Acid Campaign to promote the use of B-vitamin folic acid to prevent neural tube defects. The campaign targets women of reproductive age, health care professionals who serve these women, and other advocacy partners. Within a social marketing model framework, CDC applied extensive health communications research to develop messages and materials for the campaign. Formative evaluation research conducted with women of childbearing age helped identify effective approaches to increase knowledge and consumption of folic acid. These health communications messages were pretested and made available as television, radio, and print public service announcements, as well as posters and brochures, and were disseminated through volunteer efforts by partner organizations. Process evaluation used data from a variety of media and nonmedia sources to track message dissemination to measure women's exposure to the campaign's messages. The first outcome evaluation survey of the campaign has been conducted within selected market areas to determine if increased exposure to campaign messages was associated with any changes in women's knowledge, attitudes, and behaviors about folic acid consumption. Results from CDC's formative, process, and outcome evaluations of this national social marketing campaign may provide valuable information for enhancing health communications research and applications.

**Learning Objective:** Participants will understand the importance of consuming folic acid and the challenges inherent in conducting folic acid behavior change programs. Participants will also be able to describe methods for applying formative, process, and outcome evaluation to social marketing campaigns.

Wednesday, November 29, 2000

## Girls Rule! An Obesity Prevention Intervention for African American Girls

K. Kelsey, A. Ammerman, M. Bentley, D. Ward, P. Gordon-Larsen,  
K. Carby-Shields, P. Griffiths, T. Keyserling

**Purpose of the Program:** To gain an in-depth understanding of factors influencing obesity among pre-adolescent African American girls and to assess acceptability and feasibility of an obesity prevention intervention and maintenance program.

**Setting:** In Phase I, formative data collection (interviews, focus groups, church ethnography) will be conducted with individuals identified through the community or a local African American church. In Phase II, the intervention will be based at two African American churches.

**Intervention:** An age-appropriate and culturally specific intervention will be developed on the basis of information from the formative data collection. Two churches, each with 15 caregiver/preadolescent girl dyads, will be recruited and randomized to treatment or delayed treatment intervention. The 10-month program will consist of church- and home-based components including home visiting and telephone reinforcement. The intervention will begin with an intensive “kick-off” retreat, followed by weekly sessions at the church with activities to build skill and self-esteem. Physical activities that necessitate practice at home, such as rope skipping, step dancing, and cheerleading, will be emphasized.

**Outcome:** The primary outcome will be to assess the acceptability and feasibility of an intervention program. We will also assess body mass index, skinfolds, diet, physical activity, knowledge, attitudes, and beliefs of girls and adult caregivers.

**Conclusion:** Thirty-two interviews have been completed. We will present findings from the formative data collection and summarize implications for the intervention.

**Learning Objective:** Participants will be able to describe the need for and methods used to obtain information on individual, household, community, and ecological factors affecting diet and physical activity among African American girls and others in their familial and social networks to inform the development of a family- and community-based obesity prevention program.

Wednesday, November 29, 2000

## Reducing Smoking and Mortality Inequities: Successes in California

*B. Leistikow, D. Martin*

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**Background:** Since 1988, California has reduced smoking to half of its prior and 1998 U.S. rates of consumption per capita. We assessed subsequent trends in mortality by race, income, sex, and education.

**Method:** We calculated California and U.S. annual age-standardized total mortality rates (rates) from 1988 to 1997 for whites, blacks, and others; for nongraduates (0–11 years of education), high school graduates (12–15 years of education), and college graduates (>16 years of education); for men and women; and for poor (postal/zip code median household incomes <\$30,000), moderate (\$30,000–\$39,999), and higher-income areas (>\$40,000). We assumed zip code populations changed after 1990 in proportion to 1990 populations. We compared California mortality trends with U.S. mortality trends using ANOVA.

**Result:** Mortality inequities linked to race, income, sex, and education declined based on absolute and, in many cases, percentage bases in California from 1988 to 1997. Mortality rates for each race declined more in California than in the remaining states (each  $P < .05$ ).

**Conclusion:** The inception of an effective statewide tobacco control program in California has been soon followed by reduced mortality inequities linked to race, income, and education.

Wednesday, November 29, 2000

## Characteristics of Racial/Ethnic Disparities Among Health Behaviors From a Community-Based BRFSS Survey

S.R. Levy, W. Baldyga, J.M. Jurkowski, J.J. O'Keefe, M. Rodriguez-Sanchez

**Purpose of the Program:** The University of Illinois at Chicago administered the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS) survey to serve as an evaluation instrument for a community-based urban Latino Diabetes Demonstration Project. Questions on behavioral risk factors covered screening, prevention, and control behaviors for hypertension, blood pressure, and diabetes.

**Background:** Chronic disease research considers multiple behavioral risk factors that contribute to the development of chronic disease. These modifiable behavioral risk factors are measured by the BRFSS. Literature based on BRFSS data often indicate disparities between racial/ethnic groups and income groups in screening, prevention, and control behaviors.

**Method:** The BRFSS was implemented as a telephone interview by the University of Illinois Survey Research Laboratory. The survey was administered in both Spanish and English from January 2000 to mid-February 2000. The target population was adults older than 18 years of age who live in two southwest Chicago communities. The data were not adjusted and were analyzed to determine characteristics of the disparities in screening, prevention, and control behaviors for diabetes, hypertension, and blood pressure.

**Result:** The BRFSS had a sample size of 413 persons, 45% Latino, 29% black, and 21% white. The sample was 47% male and 53% female. Initial descriptive analysis showed significant disparities in health care coverage, screening, and health behaviors between racial and ethnic groups. However, when the data were stratified by sex within the racial/ethnic groups, significant differences were found in the proportion of men and women who completed the survey. The differences in screening and health behaviors, as well as income, were explained more by the large differences in the proportion of each sex within the racial/ethnic groups. Sixty-six percent of whites and 72% of blacks who answered the survey were female. Only 33 black men were included in the survey. In contrast, 67% of Hispanics in the sample were male.

**Conclusion:** Prevalence of behavioral risk factors will be compared by race/ethnicity, sex, and income to quantify disparities. The differences in the proportion of men and women within racial/ethnic groups may explain much of the disparities in health behaviors between racial and ethnic groups.

**Learning Objective:** Participants will be able to discuss the disparities in behavioral risk factors between the sexes, racial/ethnic groups, and income groups.

Wednesday, November 29, 2000

## **The Women's Cardiovascular Health Network Project: Making Collaborative Efforts Work**

*A. Eyler, D. Matson Koffman, K. Evenson, B. Sanderson, J. Wilbur, S. Wilcox, J. Thompson, D. Young*

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**Purpose of the Program:** To make use of expertise from seven universities to qualitatively and quantitatively study determinants of physical activity in women from various racial/ethnic groups. Information gained from this project will be disseminated to local health agencies to shape future interventions.

**Method:** Teams of researchers from seven universities have formed a network to complete this study. Network meetings are held in conjunction with national conferences, and monthly conference calls are conducted. E-mail also keeps the network in constant communication. Each school has close ties to the community being studied.

**Result:** Through meetings and conference calls, a comprehensive review of the literature was completed and a focus group moderator's guide was developed. Each site has already conducted six focus groups with different racial/ethnic groups of women. In year 2 of the study, a quantitative survey on barriers to physical activity will be developed, implemented, and analyzed. The network has also formed relationships with funding agencies to extend its empirical research into effective interventions.

**Conclusion:** Networks can be a productive way to conduct research and reach communities. We have gathered expertise from many areas and have been able to effectively study different populations of women.

**Learning Objective:** Participants will be able to describe three aspects of an effective network.

Wednesday, November 29, 2000

## Dietary Quality Among Obese Persons and Those With Normal or High Blood Pressure

C.A. Pratt, P. Basiotis

**Purpose of the Program:** To assess the dietary quality among persons with various health indicators using the Third National Health and Nutrition Examination Survey (NHANES III).

**Background:** The importance of the total diet in the management and prevention of hypertension has been documented in studies such as DASH and DASH 2. We examined dietary quality as measured by the Healthy Eating Index (HEI) among persons with normal blood pressure (NBP) and high blood pressure (HBP), obese persons, and those of normal weight (NW). The HEI score (max = 100) is the sum of 10 components, each representing aspects of a healthy diet as defined by the Dietary Guidelines for Americans and USDA's Food Guide Pyramid. It consists of the score (max = 10) for each of five major food groups, fat, saturated fat, cholesterol, sodium, and variety.

**Method:** We used data from NHANES III. The sample consisted of 20,050 adults aged 20 years or older who had not consumed alcohol or smoked cigarettes 30 minutes before blood pressure measurements. JNC-VI classifications were criteria used for blood pressure, and NIH-NHLBI Clinical Guidelines on Obesity were used for weight status. Data were analyzed using SPSS and incorporated sampling weights.

**Result:** Persons with high blood pressure had significantly lower HEI scores than those with normal blood pressure (62.8–13.1 vs. 63.1–12.6,  $P < .05$ ). Scores for sodium, variety, cholesterol, fruits, grains, milk, and vegetables were significantly lower ( $P < .005$ ) for persons with high blood pressure than for those with normal blood pressure. Significantly lower variety, cholesterol, grains, and milk scores were noted in persons who were found to have high blood pressure after 3–6 blood pressure measurements. Body mass index correlated negatively with HEI score ( $-.035$ ,  $P < .01$ ). Obese persons had significantly lower ( $P < .005$ ) HEI scores than persons of normal weight (62.8–13.2 vs. 64.2–13.0). All component scores except sodium and meat were lower for obese persons than for those of normal weight.

**Conclusion:** The data suggest that the diets of both groups (NW vs. obese and NBP vs. HBP) need improvements.

**Learning Objective:** Participants will be able to understand measures of dietary quality and its application.

Wednesday, November 29, 2000

## Community-Based Environmental Lead Intervention Study

*F. Rabito, W. Hartley, L. White*

**Purpose of the Program:** New Orleans residents are joining with the Tulane University Environmental Diseases Prevention Research Center to design and implement ways to reduce the prevalence of elevated blood lead levels among predominantly low-income African American children.

**Setting:** Inner-city children are exposed to lead in paint, household dust, and soil. Exposure to multiple sources has resulted in elevated blood lead levels (greater than 10 Fg/dL) in African American children in generally poor areas of New Orleans. Under the Demonstration Project of the Center, communities in Orleans Parish are developing low-cost and low technology approaches to reduce exposure to lead sources in and around the home and other interventions to reduce lead absorption and retention.

**Intervention:** The interventions include reduction of lead exposure by identification of lead sources in each home and education to reduce exposure. Also increased calcium and iron-rich foods and supplements are being tested to reduce absorption and retention of lead. Community outreach includes teaching parents and caretakers how to prevent lead poisoning and hiring neighborhood residents to train and educate their peers. Finally, a continuing blood lead monitoring program and environmental sampling will measure the efficacy of the program.

**Outcome:** Study participants are trained in lead poisoning prevention activities and in ways to teach their community how to reduce lead exposure. A paradigm is being developed to provide job training and employment to five or six community members who will function as research assistants with primary responsibility for carrying out the study protocol. Finally, a model program to identify inner-city children at risk and test the effectiveness of the program by assessment of success in reducing blood levels and evaluation of the nutritional and environmental interventions is being developed.

**Conclusion:** The environmental intervention includes chemical analysis for lead (household dust, drinking water, paint/XRF, and soil) and has resulted in a unique hazard assessment lead-source ranking method and appropriate risk communication methodology to be used by study participants and the community at large. Information for each home on lead sources and risks is provided to all study participants. As the program progresses, effectiveness of intervention in reducing blood lead levels will be determined.

**Learning Objective:** Participants should be better able to address lead poisoning by an array of community participatory interventions. The model for community participatory research should be useful in other inner-city communities nationwide.

Wednesday, November 29, 2000

## Chronic Illness Self-Help Groups: An Untapped Resource for the Formal Health Care Delivery System

*F. Riessman*

**Purpose:** To heighten awareness of the prevalence and effectiveness of chronic illness groups in affecting health outcomes and reducing demand on the formal health care delivery system. The presentation collects growing data from studies to develop an intervention.

**Setting:** Internal paper generated by the National Self-Help Clearinghouse pursuant to an intervention to study effectiveness and demand reduction.

**Intervention:** Discussion of effectiveness, prevalence data, and demand-reduction projections. Model of partnership between self-help organizations and formal health care delivery system.

**Outcome:** Analysis of current literature shows significant demand reduction and cost savings as well as current prevalence of chronic illness self-help groups in four U.S. cities. A significant body of effectiveness data for the effect of self-help groups on health outcomes is presented.

**Conclusion:** Chronic illness mutual aid groups represent a significant intervention in maintaining and even increasing the health of chronic illness patients. A collaboration between the health care delivery system and groups for specific chronic illnesses will reduce demand while increasing the resources available to patients.

**Learning Objective:** Participants should feel motivated to reach out to self-help groups in their communities and to work more closely with them to develop self-help units as a part of health care delivery.

Wednesday, November 29, 2000

**Behavioral Risk Factor Surveillance in Russia***H. Zabina, T.L. Schmid*

**Purpose:** To explore possibilities for translating the Behavioral Risk Factor Surveillance System (BRFSS) to Russian settings.

**Background:** The Centers for Disease Control and Prevention (CDC) and the Russian National Center for Preventive Medicine have collaborated since 1996 on developing strategies and policies for chronic disease prevention. Local and national planning in Russia is hampered by lack of behavioral risk factor data. This project piloted and then conducted a BRFSS-like survey in Moscow.

**Method:** A questionnaire similar to the BRFSS was developed by Russian colleagues. It includes questions on such health-related behaviors as smoking, physical activity, alcohol consumption, and nutrition habits, as well as presence or absence of certain diseases and conditions (hypertension, diabetes, and heart diseases). The questionnaire was tested on a random sample of 100 residents in Moscow. Different methods of data collection were compared: telephone interview, mail, and personal interview. Later it was used to collect information on behavioral risk factors in a random sample of 3,000 residents in Moscow.

**Result:** An instrument of data collection on behavioral risk factors was developed and tested, and the reliability of different methods of data collection was examined. Data on prevalence of some behavioral risk factors and disease conditions were collected on a representative sample from Moscow. These findings were then compared with the data of official medical statistics and other sources of information. Initial analysis revealed that response rate for the telephone survey was 67%; 74% of respondents were female, and the mean age was 46 years. Average duration of daily walking was 96 minutes; 24% were heavy smokers, and 20% of women had mammography in the last year.

**Conclusion:** The survey methods and instrument allows researchers to establish a sustained and efficient system for collection of reliable data on behavioral risk factors and disease conditions that can be used by public health specialists for trend evaluation and planning preventive programs.

**Learning Objective:** Participants will learn strategies for developing and implementing a behavioral risk factor system and using these data for monitoring of population levels of risk and intervention planning.

Wednesday, November 29, 2000

## Factors Associated With Screening for Colorectal Cancer in a Population-Based Probability Sample—1993, 1995, 1997

K.A. Stamatakis, E.J. Simoes, R.C. Brownson, J. Vradenburg, T. Murayi

**Purpose of the Program:** To assess differences in routine colorectal cancer screening (fecal occult blood test [FOBT] and sigmoidoscopy) across selected factors in Missouri.

**Background:** Colorectal cancer is a major cause of cancer-related death in Missouri. A key component of improving colorectal cancer outcomes is early detection through screening tests.

**Method:** We analyzed data from the Missouri Behavioral Risk Factor Surveillance System for the years 1993, 1995, and 1997. We compared self-reported prevalence of FOBT and sigmoidoscopy for Missouri and the United States and used logistic regression to calculate odds ratios of having routine colorectal cancer screening across levels of selected factors.

**Result:** Although the prevalence of ever having been screened was similar in Missouri and the United States, routine FOBT and sigmoidoscopy rates were lower in Missouri. The target age-group for colorectal cancer screening (50 years and older) was more likely to be routinely screened for both tests than adults aged 40–49 years (odds ratio  $[OR]_{FOBT}=0.4$ ;  $OR_{sig.}=0.4$ ). FOBT screening was less likely among high school graduates ( $OR=0.6$ ) and those not being routinely screened for cholesterol ( $OR=0.3$ ). Routine sigmoidoscopy was more likely in men ( $OR=1.6$ ), but less likely among those who were of Hispanic or other race/ethnicity ( $OR=0.3$ ) and who were not routinely checked for blood pressure ( $OR=0.4$ ) and cholesterol ( $OR=0.6$ ) levels.

**Conclusion:** Missouri has a slightly different pattern of colorectal cancer screening prevalence than the United States. Although the relation of certain factors to both types of screening tests were similar, differences in other predictors indicate that the forces influencing use of each screening test may be different.

**Learning Objective:** Participants should be able to describe the factors related to compliance with recommended colorectal screening tests in Missouri.

Wednesday, November 29, 2000

## National Program of Cancer Registries—Cancer Surveillance System

*H.K. Weir, H.I. Hall, P. Jamison*

**Purpose:** The National Program of Cancer Registries (NPCR)—Cancer Surveillance System (CSS) is designed to help the Centers for Disease Control and Prevention (CDC) and its partners meet critical cancer information needs.

**Background:** Cancer incidence data from population-based cancer registries are the cornerstone of comprehensive cancer surveillance and cancer control activities. Public Law (102-515) authorizes CDC to support the operation of cancer registries, and to establish and monitor national data standards. The NPCR-Cancer Surveillance System (CSS) is being established to receive, evaluate, enhance, aggregate, and disseminate data from NPCR-funded registries.

**Method:** NPCR funds 45 states, the District of Columbia, and 3 territories, covering approximately 96% of the U.S. population. This August, CDC will conduct a pilot test of the CSS.

**Result:** Results of the pilot test will be presented as well as future plans for data evaluation, enhancement, and dissemination.

**Conclusion:** The CSS will provide the factual basis for the planning, implementation, and evaluation of cancer control activities at the local, state, and national levels designed to monitor and reduce the burden of cancer in the U.S. population. CSS will also assist in NPCR program evaluation.

**Learning Objective:** Participants should be able to describe the need for comprehensive cancer surveillance and cancer control activities and how data from NPCR registries can be used to meet critical cancer information needs.

Wednesday, November 29, 2000

## Integration of Smoking Cessation/Reduction in Pregnancy Treatment Model Into Maternity Care and Practice

R. Windsor, L. Woodby, M. Crawford, M. Hardin, T. Miller

**Purpose of the Program:** Smoking among pregnant women, particularly Medicaid-insured patients, is one of the most important risk factors for infant and maternal morbidity and mortality. The rate of low-birth-weight deliveries for African American pregnant women is double that of their white pregnant counterparts. The “Smoking Cessation and Reduction in Pregnancy Treatment Model” (SCRIPT, 1982–2000) was designed to determine how to successfully integrate efficacious patient education methods for women into public health and managed care organizations. We have translated the results of multiple evaluation studies of the efficacy and cost-effectiveness of methods for pregnant smokers and applied the Agency for Health Care Policy and Research Smoking Cessation Clinical Practice Guideline into Best Clinical Practice Methods—SCRIPT. The effectiveness of SCRIPT, delivered as part of routine prenatal care by physicians, nurses, social workers, and nutritionists, has been rigorously evaluated. Our presentation will describe organizational development methods to plan and integrate SCRIPT procedures into multiple clinical practices; methods to assess patient and provider structure, process and content, patient flow analyses of maternity visits; methods to assess staff acceptability or barriers or both to routine use of patient assessment and counseling methods; and methods to document patient behavior change rates and cost.

**Learning Objective:** Participants will be able to 1) describe current trends of tobacco exposure during pregnancy; 2) identify “Best Practice” patient education methods for pregnant smokers; 3) explain how to successfully remove organizational and practice barriers to integration of “Best Practice” into routine obstetrical care; 4) describe the types and costs of measurements used to document tobacco exposure; and 5) describe process, impact and cost analysis, and results for SCRIPT.

**Conclusion:** The Smoking Cessation/Reduction in Pregnancy Treatment Model is designed to integrate efficacious patient education methods into managed care. This session describes integration into routine clinical practice; assessment of acceptability or barriers or both to use of patient assessment and counseling methods; documentation of behavior change rates; and cost. Adoption of these best clinical practice methods for pregnant smokers into managed care will ameliorate this important risk factor, eliminate health disparities between smokers and nonsmokers, and improve birth outcomes.

Wednesday, November 29, 2000

## Development of a System for Training Health Specialists in Evidence-Based Chronic Disease Prevention in Russia

*H. Zabina, P. Siegel, T. Leet, E. Volkova, O. Kalev, R. Potemkina, T. Kamardi*

**Purpose of the Program:** To develop and implement a training program on evidence-based chronic disease prevention for Russian public health professionals and to strengthen effective, scientific-based approaches to prevention in Russia.

**Setting:** The project is an ongoing collaboration between the Centers for Disease Control and Prevention's National Center for Chronic Disease Prevention and Health Promotion, the Association of State and Territorial Chronic Disease Program Directors, the Saint Louis University School of Public Health, and the Russian Ministry of Health, the National Center for Preventive Medicine, and the Ural Medical Academy. It is sponsored by the Soros Foundation. A group of experts from both countries is working on an instrument for assessing epidemiological capacities in Russian regions and developing a curriculum for a training course for public health professionals.

**Intervention:** Chelyabinsk was selected as a pilot region. Baseline epidemiological capacities and competencies assessment was done in public health institutions at the pilot site. Training materials were then developed to reflect Russian conditions and requirements. The materials addressed such topics as methods for epidemiological data analysis and use of epidemiological data for planning intervention programs. A training course was conducted for local health professionals in Chelyabinsk.

**Outcome:** We tested and validated training materials in Russian that can be disseminated and used for training public health professionals nationwide. It is expected that these materials will be incorporated into the curriculum of schools of public health and used in postgraduate and continuing education courses.

**Learning Objective:** Participants should better understand how to assess problems, establish priorities, and make strategic decisions in the area of chronic disease prevention based on epidemiological analysis of population-based public health data in a variety of settings and cultures.

Wednesday, November 29, 2000

## **Lumping and Clustering Behavioral Risk Factor Data to Improve Estimates at the Local Level**

*T. Melnik, C. Baker, R. Gardiner*

**Purpose:** To estimate chronic disease related behaviors at the county level using 1994 through 1998 Behavioral Risk Factor Surveillance System (BRFSS) data.

**Background:** To better appreciate the variable impact of risky health behavior upon disease prevalence requires an assessment of health behavior at the county level. BRFSS sample sizes are too small to accurately estimate health behaviors for most of New York's 62 counties.

**Method:** Prevalence rates for counties with adequate sample size were estimated directly. To estimate prevalence for the remaining counties, Wards clustering technique was used to group counties with similar socioeconomic characteristics into seven clusters. Prevalence rates for counties within each cluster were applied to create synthetic estimates.

**Outcome:** Individualized county-level behavioral risk factor rates are now available for all 62 New York State counties.

**Conclusion:** Counties can use the information to more accurately assess their chronic disease program needs.

**Learning Objective:** Participants will understand how small-area risk factor rates can be developed from the statewide BRFSS data.

Wednesday, November 29, 2000

## **Rescreening for Breast and Cervical Cancer: Innovative Approaches to Ensuring Women Receive Services**

*R. Braun, K. Dietzen*

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**Purpose of the Program:** To inform local jurisdictions of what has been found to be effective and not effective in getting women to be rescreened for breast and cervical cancer.

**Setting:** Information on the innovative approaches is provided by the Breast and Cervical Cancer Control Program (BCCCP) projects (funded by the Centers for Disease Control and Prevention).

**Intervention:** The BCCCP contractors have tried a variety of innovative approaches and have reported their level of effectiveness to the state.

**Outcome:** Both the successful and unsuccessful interventions are shared with all the BCCCP contractors in California. This sharing enables other contractors to adopt innovative interventions for the women served in their area and avoid interventions that have been found ineffective.

**Conclusion:** It is helpful to provide information to all the California BCCCP contractors on both successful and unsuccessful approaches. Having such information enhances contractor productivity.

**Learning Objective:** Participants will be able to list successful and unsuccessful approaches and explain the mechanism for disseminating the information to all contractors.

Wednesday, November 29, 2000

## The Relationship Between Cost and Output Levels in the National Program of Cancer Registries

G.D. Berg, H. Weir, E.C. Mansley, K.A. Belloni

**Background:** The National Program for Cancer Registries (NPCR) supports statewide, population-based cancer registries that monitor local trends in cancer incidence and mortality.

**Objective:** The objective of this study is to examine the relationship between cost and cases of cancer registered for each NPCR state.

**Data:** Federal and state resources allocated to individual states and cancer cases registered are obtained from the Grants Management Information System and the NPCR registry maintained by the Centers for Disease Control and Prevention.

**Method:** Least Squares with heteroskedastic consistent covariance estimation is used to predict total cost and average cost across the number of cancer cases registered while controlling for potential confounders.

**Result:** Preliminary results suggest the cost per case registered ranged between \$14 and \$88 for states with an established registry before federal funding began and between \$15 to \$233 for states who began a registry with the onset of the NPCR. Regression results suggest that average cost differs substantially between states and is determined in large part by the number of cancers detected.

**Conclusion:** These results suggest that costs for these kinds of public health surveillance programs vary with output level. This implies that 1) differences in output level should be taken into account when comparing operating efficiency across states, 2) conclusions from societal cost-effectiveness analyses may depend on the level of output at which the programs are evaluated, and 3) planning and appropriation decisions may be suboptimal if cost projections do not take into account the behavior of average costs.

**Learning Objective:** Participants should be able to examine the relationship between cost and cases of cancer registered for NPCR states.

Wednesday, November 29, 2000

## Effects of a Health and Fitness Facility Benefit on Physical Activity in Older Adults

*D. Buchner, A. Cheadle, M. Durham, N. Sandhu*

**Purpose of the Program:** To examine the impact on physical activity and health care use of an insurance benefit that provides free use of health and fitness facilities for Medicare beneficiaries.

**Background:** Physical activity is an important determinant of health in older adults, but it is difficult to increase using behavioral interventions alone. Policy and environmental interventions may have greater impact since they influence the whole culture, and are less costly and more enduring.

**Method:** Surveys and automated data were used to compare enrollees in a health club benefit in a Northwest health maintenance organization (HMO) with a group at another Northwest HMO that signed up for the same benefit 2 years later. Outcome measures included CHAMPS physical activity scores and rates of outpatient visits.

**Result:** After adjustment for variables that influence activity levels, CHAMPS scores were significantly higher for HMO enrollees who registered for the benefit (about 30% higher total caloric expenditure, and about 20% higher caloric expenditure in moderate and vigorous intensity activities). The increase in outpatient visits over 2 years was significantly less among enrollees registered for the benefit (~0.4 visits/year) than for controls (~1.9 visits/year).

**Conclusion:** An insurance benefit for free use of a health and fitness facilities may substantially increase physical activity and decrease health care use among older adults.

**Learning Objective:** Participants should be able to describe potential advantages of policy interventions to increase physical activity.

Wednesday, November 29, 2000

**Physical Activity Promotion: An Overview of CDC Activities***C.R. Burgeson, J.E. Epping, G.W. Heath, R. Moeti, D.M. Buchner*

**Overview:** Using a cross-disciplinary approach to physical activity promotion, the Centers for Disease Control and Prevention's Division of Nutrition and Physical Activity conducts surveillance, applied research, and interventions.

**New Physical Activity Questions for Behavioral Risk Factor Surveillance System (BRFSS):** Beginning in 2001, BRFSS core questions will measure occupational physical activity as well as moderate and vigorous intensity leisure-time physical activity, and optional module questions will measure walking and strength training activities.

**World Health Organization (WHO) Collaborating Center on Physical Activity and Health Promotion:** A two-part workshop series is addressing physical activity dose-response issues and the development of related science-based messages for the public.

**Physical Activity Chapter of the *Guide to Community Preventive Services*:** Due to be published in early 2001, the chapter will provide evidence-based recommendations for physical activity interventions.

**KidsWalk-to-School Program:** This user-friendly community action guide promotes walking to school through organizational steps, fun strategies, safety and media tips, sample letters, and evaluation tools.

**New School Health Tools to Promote Physical Activity:** School Health Index: A Self-Assessment and Planning Guide and School Health Policy Guide are tools to assist schools in improving their policies and programs.

**Review of State Physical Activity Programs:** Conducted in 1999, the review provides insights on state capacity, partnerships, environment and policy efforts, and behavior change interventions.

**Future Directions:** Upcoming projects include physical activity promotion for older adults and African Americans, a document to assist states in developing a physical activity plan and training opportunities.

**Learning Objective:** Participants should be able to describe the applicability of each project to physical activity promotion strategies and methods for accessing information and resources.

Wednesday, November 29, 2000

## Success Stories in Colorectal Cancer Screening: How Comprehensive Patient Education Impacts Test Compliance

*L. Couey*

**Purpose of the Program:** To provide people with important education and follow-up in an effort to increase screening compliance.

**Setting:** In 1997, the New York State Department of Health established a unique program using local initiatives throughout the state to increase the availability of colorectal and prostate cancer education and colorectal screening to underserved and uninsured populations aged 50 years and older.

**Intervention:** Local communities provide the following services: link colorectal cancer education and screening to existing services for the uninsured; implement community-based education activities to inform men and women of the need for, and availability of, colorectal cancer screening with distribution of fecal occult blood test (FOBT) kits; assure the availability of colorectal cancer screening, as well as diagnostic services and affordable treatment options for the uninsured screened population; and educate about prostate health, prostate cancer, and issues related to screening and treatment.

**Outcome:** Eighty-five percent of the people educated about colorectal cancer screening took FOBT kits home with them. Of those, 61% returned the kits.

**Conclusion:** To date, the colorectal cancer screening program has enjoyed a 61% return rate for FOBT kits distributed. This rate is extremely high compared with studies cited in the literature.

**Learning Objective:** Participants will be better able to develop appropriate strategies for the successful implementation of a comprehensive client education program regarding colorectal cancer prevention and early detection and the preparation and use of the FOBT kits. In addition, they will be better able to develop effective methods for follow-up to ensure return of the kits for analysis and further treatment, if necessary.

Wednesday, November 29, 2000

## Quality of Life With Arthritis: Comparing a Rheumatology Clinic Sample With a State-Level Sample

S. Currey, J. Rao, L. Callahan

**Purpose of the Program:** To describe and compare persons with arthritis from state-level and rheumatology clinic samples using the four-item BRFSS health-related quality of life (HRQOL) measure.

**Background:** *The National Arthritis Action Plan* and *Healthy People 2010* include goals of improved quality of life for people with arthritis. The BRFSS HRQOL items are recommended for assessing the attainment of these goals.

**Method:** Participants in the 1998 North Carolina BRFSS who self-reported a physician diagnosis of arthritis (N=600) were compared according to the four BRFSS HRQOL items with persons with physician-verified arthritis from rheumatology clinics (N=581).

**Result:** Compared with the state-level sample, the rheumatology clinic sample was more likely to report fair or poor health (42.4% vs. 36.7%) and reported more days when physical health was not good (11.3 vs. 8.3) and mental health was not good (6.9 vs. 3.9). There was no difference in reported days with activity limitations (7.4 vs. 7.9). Similar results were obtained when analyses were adjusted for sex, age, and education, and when weights were used for the state-level data.

**Conclusion:** Persons from a clinic population with physician-verified arthritis experienced poorer HRQOL than those with self-reported arthritis in state-level data. Although this finding is not surprising, estimates of HRQOL based on state-level data may overestimate the quality of life for persons with arthritis. HRQOL in the arthritis population is most likely somewhere between state-level and clinic sample estimates.

**Learning Objective:** Participants should be able to recognize the differences in HRQOL among samples of persons with arthritis and the implications of these differences for population-based estimates of HRQOL.

Wednesday, November 29, 2000

## **The Rhode Island Diabetes Education, Assessment, Referral, and Screening Program: Promoting and Supporting Systemic Change to Health Care Delivery for Diabetes**

*D. Goldman, N. Hughes, J. Lindenmayer*

**Purpose of the Program:** The Diabetes Education, Assessment, Referral, and Screening (DEARS) Program aims to improve the health and well-being of people with diabetes by simultaneously supporting patients to manage their diabetes more carefully and physicians to deliver routine diabetes standards of care and related clinical preventive services. The Rhode Island Diabetes Control Program (RI DCP) is adapting this approach to diabetes management in all settings where primary care is delivered.

**Setting:** The DEARS Program has been applied among people with diabetes aged 65 years and older in a variety of primary care settings, including individual and group practices, community health centers, senior centers, and hospitals.

**Intervention:** The main features of the DEARS Program are annual delivery of high-quality comprehensive diabetes management (clinical and laboratory standards of care and clinical preventive services, and education) by a health care team (physician, certified diabetes educator pharmacist, nurse, and dietitian) to people with diabetes in one-on-one and group settings. The RI DCP continually evaluates the DEARS Program, provides immediate feedback to physicians, and publicizes DEARS in the lay and professional press. The RI DCP has instituted a DEARS physician mentor program and routinely recognizes the contributions of DEARS physicians.

**Outcome:** Physicians and patients report a high degree of satisfaction with the DEARS Program in general and also with specific features of the Program. Both groups strongly indicate their intent to participate in the Program again.

**Conclusion:** Diabetes control programs can support the dissemination of proven interventions that change the way diabetes is managed in the health care system.

**Learning Objective:** Participants should be able to describe how the DEARS Program re-engineers clinical and self-management of diabetes. Participants should be able to describe how to adapt the DEARS Program to various primary care settings.

Wednesday, November 29, 2000

## Population-Based Knowledge of Stroke Risk Factors and Warning Signs—1999 Michigan Behavioral Risk Factor Survey

*J. Hogan, M. Reeves, A. Rafferty, R. Hurst*

**Purpose of the Program:** To assess the knowledge of Michigan adults regarding risk factors and warning signs for stroke.

**Background:** Knowledge of risk factors at a population level is important for primary and secondary prevention activities, and awareness of warning signs is increasingly important with the advent of new thrombolytic treatments for stroke.

**Method:** Questions regarding risk factors and warning signs were incorporated into the 1999 Michigan BRFSS, a random-digit-dialed survey of 2,500 adults. Respondents were asked to identify up to three risk factors and warning signs for stroke.

**Result:** Sixty-five percent ( $\pm 2.2$ ) of respondents identified at least one risk factor, and 69% ( $\pm 2.0$ ) identified at least one warning sign. The most frequently mentioned risk factors were hypertension (32%  $\pm 2.0$ ), smoking (29%  $\pm 2.0$ ), and high cholesterol (18%  $\pm 1.8$ ). The three most frequently mentioned warning signs were weakness or numbness, especially unilateral (46%  $\pm 2.2$ ); slurred speech, disorientation, or difficulty understanding (30%  $\pm 2.0$ ); and dizziness (24%  $\pm 1.8$ ). Most respondents (84%) knew to seek emergency medical care once stroke signs were recognized.

**Conclusion:** Many Michigan residents could name at least one stroke risk factor or warning sign and nearly all recognized the urgent nature of seeking treatment for stroke.

**Learning Objective:** Participants should be able to describe the use of a population-based survey to assess knowledge of stroke risk factors and warning signs for intervention.

Wednesday, November 29, 2000

## The Diabetes Community Collaboration Project: Evaluating a Collaborative Model to Improve Rural Chronic Disease Care

K. Kelker, M. Roberts, J. Desai, H. Devlin

**Purpose of the Program:** To improve diabetes care in Northern Koochiching (NK) and Rice counties through public-private partnerships.

**Setting:** In 1996, the Minnesota Diabetes Program (MDP) facilitated the development of two community diabetes coalitions with representatives from public health, private health care, and community groups. Interventions involved health systems, county government, community organizations, and local media.

**Intervention:** Using a *Diabetes Today* community planning process, the coalitions designed and implemented community- and clinic-based interventions targeting preventive care. Baseline (1996) and 2-year follow-up (1998) patient chart audits were performed at 5 primary care clinics in the two counties, with 100 diabetes patients randomly selected per clinic per time point. Change from baseline to follow-up was evaluated. A 4-year follow-up audit is in progress.

**Outcome:** The interventions improved the rates of chart documentation, as well as service delivery. In NK, improvements were seen in diabetes visits (11%), foot examinations (150%), eye examinations (120%), kidney testing (200%), and hemoglobin A<sub>1c</sub> testing (129%). Hemoglobin A<sub>1c</sub> values dropped from 8.9 to 8.2, and total cholesterol values decreased from 212 mg/dl to 206 mg/dl. In Rice, diabetes visits increased by 12%, foot examinations by 20%, eye examinations by 80%, kidney testing by 38%, and hemoglobin A<sub>1c</sub> testing by 66%.

**Conclusion:** Broad-based public-private community coalitions can implement diabetes interventions that contribute to significant improvements in the provision of diabetes care in rural settings. The DCCP has established a strong foundation for ongoing improvements in these communities.

**Learning Objective:** Participants will be able to describe the DCCP collaborative model, clinic- and community-based interventions, and their impact on provision of local diabetes care.

Wednesday, November 29, 2000

## Development of a Diabetes Mellitus Management Program Within an Integrated Health Care Delivery System

*M. Striegel, R. DeGrazia, R. Schmeltz*

**Purpose of the Program:** The Health Plan has implemented a Diabetes Mellitus Disease Management Program designed to improve patient care through a nonpunitive education program for physicians and patients. This program has adopted the American Diabetes Association Standards of Care 1999 and 2000 as its key monitors and goals.

**Setting:** The Health Plan is the insurance component of a large integrated health care delivery system having 198,787 covered lives, more than 3,700 physicians, and 17 merged hospitals. A physician-led disease management task force guided the development of program-specific protocols and interventions.

**Intervention:** The program was developed to provide population-based management to 3,412 patients with diabetes and their physicians. Patient interaction with the health plan (physician visits, eye examinations, and laboratory and pharmacy usage) was tracked using claims data. Data mining allowed comorbidities to be assigned to each patient. Individual disease management was provided to 249 members with at least four diabetes-related comorbid conditions. Educational interventions were available through group and individual counseling, in a variety of settings.

**Outcome:** Health data was tracked using claims and chart audit information related to established diabetic key monitors and goals, and HEDIS and *Healthy People 2010* standards, and was provided to physicians on a quarterly basis. Outcome measures, including SF-12, were evaluated semiannually.

**Conclusion:** A comprehensive diabetes program with general population and disease-specific components can be effectively implemented in a large health care delivery system.

**Learning Objective:** Program participants will be more knowledgeable about diabetes care.

Wednesday, November 29, 2000

## The Wisconsin Collaborative Diabetes Quality Improvement Project

*A. Russell, L. Quenan, P. Remington*

**Purpose of the Program:** To assess the quality of diabetes care among 18 health care organizations in the state using existing performance measures.

**Setting:** Fifteen health maintenance organizations (HMOs), a tribal council, a health care provider, and an insurance corporation participated in the project. The population of the 15 HMOs participating in this project represents approximately 68% of the 1.5 million people currently enrolled in HMOs in Wisconsin.

**Intervention:** Each health care organization reported the percentage of its diabetes population who had received selected measures of diabetes preventive care in 1998, using HEDIS<sup>a</sup> performance indicators. The collaborative group involved in this project participates in sessions to share strategies for improving diabetes care.

**Outcome:** The proportion of the population with diabetes in this study receiving preventive care varied by indicator: annual retinal eye exam (age >31 years: 55%; age 18–75 years: 48%); annual lipid profile (58%); one or more hemoglobin A<sub>1c</sub> tests (81%); and annual nephropathy screening (27%).

**Conclusion:** The data collected in this project demonstrate considerable variability in the delivery of preventive services to this population with diabetes. This study demonstrates a novel, ongoing collaborative model for statewide quality improvement.

**Learning Objective:** Participants should be better able to describe existing performance measures used to assess quality of diabetes care and work with health care organizations to improve the quality of care for persons with diabetes.

Wednesday, November 29, 2000

## City Planning, Transportation Design, and Public Health: Marriage or Divorce?

*T.L. Schmid, R.E. Killingsworth*

**Purpose of the Program:** To examine the effects of macro- and micro-level environmental conditions on rates of walking and bicycling.

**Background:** Transportation and urban design literature suggest that community features such as age of housing, street design, density of work and housing, safety, and availability of public transit affect rates of walking and bicycling. Increases in walking and bicycling are two of the *Healthy People 2010* health objectives and have significant potential for populationwide health benefits.

**Method:** Relationships between urban form and travel are examined using information about 36,000 trips generated by more than 1,500 households from the Puget Sound Transportation Study, a longitudinal cohort study. Urban form characteristics were then abstracted from Geo-Coded census tract files. Analysis focused on walking and bicycling in terms of environmental influences on expressed demand, potential demand, and recreation trips.

**Result:** Although walking and bicycling are only a small proportion of total trips, environmental characteristics appear to influence their rate. Household density, employment density, street connectivity, age of census tract, and circuitry (distance between destination and origin) are significantly correlated with transportation-related walking and bicycling, somewhat less so when adjusted for household income and family size. Similar patterns were found for recreational walking and bicycling.

**Conclusion:** Features of community design and transportation investment have a significant influence on levels of walking and cycling for transportation and recreation. Although additional research is needed to clarify the individual and joint contribution of these features, sufficient data exist to warrant participation by public health scientists and health educators in discussion of decisions on community design.

**Learning Objective:** Participants will learn how features in the built environment can influence levels of walking and bicycling, and will understand the importance of finding a place at the table when urban design issues are discussed.

Wednesday, November 29, 2000

## Arthritis and Quality of Life Surveillance

*N. Scruggs, J. Lumpkin, M. Crocker, Y. Huang*

**Purpose of the Program:** To assess the health-related quality of life for patients with arthritis in South Carolina.

**Background:** Arthritis and degenerative skeletal disorders are the nation's most debilitating chronic condition. These disorders have previously not been included in chronic disease surveillance because chronic disease epidemiology has previously focused on outcomes that were measured by morbidity and mortality rates. Only recently has a national plan been developed to address public health aspects of arthritis. South Carolina is participating in a grant to reduce the burden of arthritis and other rheumatic conditions.

**Method:** The 2000 South Carolina Behavioral Risk Factor Surveillance System (BRFSS) data were analyzed to determine the prevalence of arthritis in South Carolina and the self-reported perceived general health and number of healthy days for persons with arthritis.

**Result:** The preliminary prevalence rate estimate for arthritis in South Carolina is 33%. This estimate is higher for women, increases with age, and decreases with higher education levels. Persons with arthritis reported a higher number of days of poor mental health, poor physical health, and usual activity limitation. Multiple graphics will be shown to describe findings from this analysis.

**Conclusion:** Arthritis is a debilitating chronic condition affecting one-third of South Carolinians and resulting in diminished quality of life.

**Learning Objective:** Participants will be able to describe applications of quality of life measures and the importance and need for further arthritis and quality of life surveillance.

Wednesday, November 29, 2000

## Implementing a Knee Osteoarthritis Model in a Large Health Care Delivery Network

*D. Taylor, R. DeGrazia, T. Starz, J. Ursiny, M. Vogt, T. Mascari, T. Osial*

**Purpose of the Program:** To establish an evidence-based uniform knee osteoarthritis (KOA) management model for primary care, rheumatology, and orthopedic surgery across a large health care delivery network (HCDN).

**Method:** The Health Plan is the insurance component of an integrated HCDN that includes 17 merged hospitals, more than 3,700 physicians, and 68,723 commercial and 57,463 Medicaid members. A multidisciplinary committee developed a model of care for the management of KOA based on the patient's pain, function, and structural change on X-ray. Information to monitor care activities was obtained using insurance claims data from the Health Plan. KOA guidelines and feedback was provided to physicians and other health care professionals via printed and electronic material and seminars.

**Result:** During the first 6 months of 1999, 1,276 (2%) commercial and 1,004 (2%) Medicaid Health Plan members had a least one encounter (total: 12,761 encounters) using the 30 diagnostic ICD-9 codes for definite or suspected KOA. Certain components of care including imaging studies, pharmaceutical use, and physical therapy were chosen for monitoring. Nine hundred eighty-three Health Plan members had X-rays, 196 had magnetic resonance imaging (MRIs), 226 had physical therapy, 1,029 received nonsteroidal anti-inflammatory drugs (NSAIDs), and 35 were given a hyaluronic acid injection. Using this information, a baseline use profile was developed for the Network. In addition, criteria for imaging studies, medication use, and physical therapy for KOA were established.

**Conclusion:** A KOA disease state management program can be successfully implemented in a large HCDN using data obtained from insurance claims for monitoring.

**Learning Objective:** Participants will understand the development of a KOA model in a large HCDN.

Wednesday, November 29, 2000

## Developing an Internet-Based Geographic Information System for California Public Health Professionals

*E. Takada, N. Martinez*

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**Purpose of the Program:** To develop a user-friendly application designed to assist public health professionals and their community partners in more effectively identifying and meeting the nutrition and physical activity needs of low-income Californians.

**Setting:** California Project LEAN (CPL), in cooperation with a geographic information systems (GIS) solutions group, has developed an Internet-based GIS application that will primarily facilitate information dissemination in the form of visual, geographic representations of existing data.

**Intervention:** This Web site contains local information about available public health services and contacts related to nutrition and physical activity, and houses the GIS component that can be used to identify the demographic characteristics of low-income populations in specific regions throughout California, and their relationship to the location of appropriate resources.

**Outcome:** A 3-month evaluation has been conducted among a random sample of users to examine usage patterns and to continue to adjust and update the data.

**Conclusion:** The goal of this Internet-based GIS is to further strengthen the network of local public health professionals by building and making accessible a more comprehensive source of public health nutrition, physical activity, and prevention information, with a database of the most currently available resources and contacts, and their geographic distribution.

**Learning Objective:** Participants will learn how an Internet-based GIS application can help to analyze the relationship between low-income or other target populations and necessary resources.

Wednesday, November 29, 2000

## **An Exploratory Study of Subclinical Eating Disorder Symptomatology Among Adult Women**

*C. Murray, R.M. Weiler, R.M. Pigg, Jr, S.M. Dorman, P.T. Bradshaw*

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**Purpose of the Program:** To determine the prevalence of subclinical eating disorder symptomatology among a convenience sample of adult women.

**Background:** Knowledge of eating disorder symptomatology among adult women across the life span can be used to refine existing, and develop new, interventions.

**Method:** Data collected using the Eating Disorder Inventory were analyzed to examine the effects of age and other selected demographics on drive for thinness, bulimic tendencies, and body dissatisfaction.

**Result:** Findings indicate that nonmarried women in their thirties have a higher drive for thinness than their peers. Women who are currently dieting and feel they have a weight problem have a higher drive for thinness. Nonmarried women and women who are currently dieting have stronger tendencies to think about and engage in bouts of uncontrollable overeating (bingeing). Furthermore, women who are currently dieting and feel they have a weight problem exhibit higher body dissatisfaction.

**Conclusion:** Although the findings from this study should be regarded as preliminary, future research examining eating disorder symptomatology among young adult, middle-aged, and aging women, as well as longitudinal research on the stability of disordered eating over time, can contribute to the understanding of disordered eating across the life span.

**Learning Objective:** Participants will be able to describe the effects of age and other selected demographics on eating disorder symptomatology.

Wednesday, November 29, 2000

## Using an Adult Tobacco Survey to Inform Program Performance Measures

*S.L. Yee, M. Schooley*

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**Purpose:** To highlight the use of an adult tobacco survey (ATS) in providing program performance measures that contribute to the planning, implementation, and evaluation of tobacco use prevention and control programs.

**Background:** Increased tobacco control activities and available funding have generated a need to develop new data systems that will inform programmatic activities. National and state-level data systems provide baseline data for guiding programmatic activities, monitoring tobacco-related indicators across states, and assessing program impact.

**Method:** The poster will present the process of developing program performance objectives, designing survey questions, and reporting data from an ATS. Performance objectives, which are linked to programmatic activities, provide indicators of program progress and impact. The ATS questions are designed and tested to measure specific performance objectives. Sample tables, figures, and report styles will be highlighted to address effective dissemination strategies for ATS data.

**Conclusion:** To date, about eight states have conducted an ATS. The ATS provides data on tobacco knowledge, attitudes, and behavior related to product use, cessation, media and advertising, and environmental tobacco smoke.

**Learning Objective:** Participants will be able to identify key performance measures from an ATS for informing state-specific program objectives.

Wednesday, November 29, 2000

## Determinants of Children's Exposure to Environmental Tobacco Smoke

*J.M. Zakarian, M.F. Hovell, G.E. Matt, C.R. Hofstetter*

**Purpose of the Program:** To examine the determinants of exposure to maternal environmental tobacco smoke (ETS) in the home among young children from low-income, racially/ethnically diverse families.

**Background:** Exposure to environmental tobacco smoke increases children's risk of illness and has been estimated responsible for \$897 million in annual U.S. health care costs.

**Method:** English-speaking and Spanish-speaking mothers ( $n = 108$ ) who smoked and exposed their children (aged  $<4$  years) were recruited from Supplemental Nutrition Program for Women, Infants, and Children (WIC) sites in San Diego County. These data were obtained by mothers' reports before random assignment for an intervention trial.

**Result:** Mean exposure to mothers' cigarettes in the home was 27.3 cigarettes per week for the experimental group and 24.6 cigarettes per week for controls. Hierarchical multiple regression analysis accounted for 44% of the variance in children's ETS exposure ( $F[11,84] = 7.70, P < .001$ ). The strongest correlates of exposure were mothers' smoking rate, having friends and family who exposed their children to ETS, mothers' education (negative), and the number of rooms in the home (negative). Mothers' race/ethnicity, perceived harm from exposure, having smoked during pregnancy, self-efficacy for protecting children from exposure, number of people recommending reduced exposure, and babies' age were not statistically significant correlates.

**Conclusion:** Mothers' education, modeling influences, and practical considerations such as the home size are predictive of children's exposure to ETS in the home.

**Learning Objective:** Participants should be able to describe the correlates of children's ETS exposure for this sample.

Wednesday, November 29, 2000

## Access to and Quality of Health Care Among Latinas and Non-Latina Whites

A. Abraido-Lanza, M. Chao

**Purpose of the Program:** To assess whether Latinas are less likely than non-Latina whites to have access to, or receive, quality health care.

**Background:** Compared with non-Latina whites, Latinas are less likely to have had preventive cancer screening tests. Lack of access to health care or quality of health care received may contribute to these disparities.

**Method:** The 1991 National Health Interview Survey was analyzed. All analyses were adjusted for clustering, stratification, and oversampling to account for survey design. Access to care was measured by whether respondents have private health insurance and length of time since last checkup. Source of health care and the extent of respondents' last physical exam were used as measures of quality of health care received. Hypotheses were tested using multivariate linear and logistic regression models.

**Result:** Latinas were significantly less likely than non-Latina whites to have private health insurance (odds ratio=.44,  $P > .001$ ) but no significant differences were found for length of time since last checkup. Latinas were also found to have a less favorable source of care than non-Latina whites. Among Latinas, 25.6% reported not having a regular source of care, compared with 12.4% of non-Latina whites. Although, relative to non-Latinas, Latinas had a slightly higher mean score on extent of last physical exam, the difference was quite small.

**Conclusion:** Access to health care and quality of care received must be considered when examining discrepancies in preventive health behaviors.

**Learning Objective:** Participants should be able to describe differences between access to, and quality of, health care for Latinas and non-Latina women.

Wednesday, November 29, 2000

## The Burden and Risk Associated With Overweight and Obesity

N.H. Kabeer, E.J. Simoes, J. Jackson-Thompson

**Purpose of the Program:** To identify subpopulations with the greatest perceived health burden attributed to overweight/obesity in combination with comorbid conditions in the state of Missouri and subpopulations of overweight and obese people at greatest risk for developing chronic diseases.

**Background:** Prevalence of obesity, a major risk factor for chronic disease, increased 42% from 1987 to 1997.

**Method:** In 1999, the Missouri Department of Health conducted a BRFSS-based Obesity Reduction Survey of adults (n=2,100). We used both National Center for Health Statistics (NCHS) and National Heart, Lung, and Blood Institute (NHLBI) standard definitions of overweight and obesity. We used NCHS standards to generate sex- and race-specific adjusted odds ratios (OR) of being classified as overweight or obese across levels of sociodemographics, primary risk factors, and comorbidities.

**Result:** The prevalence of overweight in Missouri was 36.4% according to NCHS standards and 57% according to NHLBI standards. Among males and whites, the likelihood of being obese was greater for those having eating disorders [(OR=4.4, 95% confidence interval [CI] 1.4, 13.8) and (OR=2.8, 95% CI 1.4, 6.0), respectively] and those diagnosed with diabetes [(OR=2.2, 95% CI 1.03, 4.6) and (OR=2.6, 95% CI 1.5, 4.5), respectively]. Among females, being diagnosed with cardiovascular disease (OR=2.0, 95% CI 1.1, 3.8), diabetes (OR=2.5, 95% CI 1.3, 5.0) and being physically inactive or irregularly active (OR=2.3, 95% CI 1.5, 3.5) was positively associated with being obese. A positive relationship was found between being inactive or irregularly active and being obese among both racial groups.

**Conclusion:** In Missouri, obesity was highly associated with comorbidities and other primary risk factors. By examining the cumulative burden of obesity and identifying risk factors among subpopulations, public health programs can develop interventions targeting multiple risk factors simultaneously.

**Learning Objective:** Participants should be able to describe which subpopulations are at risk for developing chronic diseases attributable to overweight and obesity, other comorbidities, and sociodemographic factors.

Wednesday, November 29, 2000

## Assessing Cost-Effectiveness of a Cancer Inquiry Protocol

N.H. Kabeer, E.J. Simoes, D. Leone, S. Arbuckle, J. Jackson-Thompson

**Purpose:** To determine the cost-effectiveness of the Missouri Department of Health's (MDOH's) new cancer inquiry.

**Background:** Past cancer inquiries conducted by MDOH were time-consuming, costly, and often scientifically inadequate. A new cancer inquiry protocol was developed that uses epidemiological principles of causation to address community concerns about possible excess cancer.

**Method:** We applied the protocol to cancer inquiries from the past 5 years to determine if analytical work was required. Two independent reviewers classified analyses as necessary or unnecessary. We used Kappa statistics to assess agreement between reviewers' conclusions. After randomly selecting one necessary and two unnecessary inquiries, we used Missouri Cancer Registry cases and cancer cluster statistics to assess clustering in time and space.

**Result:** We reviewed 184 inquiries for which the available information allowed protocol application. The two reviewers identified that 96% and 90%, respectively, of analyses were unnecessary. Application of the protocol yielded cost savings of \$100,209. The reviewers' conclusions were comparable (i.e., overall Kappa = 0.60 and percent agreement = 0.90). After reanalysis, we found no clustering in the unnecessary analyses, but excess in the necessary analysis.

**Conclusion:** Unnecessary analyses are time-consuming and costly. This reproducible protocol is a potential cost-saving tool for public health departments. Although reanalysis confirmed findings regarding necessary and unnecessary inquiries, this reanalysis could not estimate the protocol's ability to detect true cancer clusters because of a lack of a gold standard. It is possible that cancer inquiries considered unnecessary could potentially fall in the necessary classification if more cancer cases were found or different statistics were used or both.

**Learning Objective:** Participants should be able to 1) understand the use of an epidemiologically based cancer inquiry protocol, and 2) minimize cost and effort by eliminating unnecessary analyses.

Wednesday, November 29, 2000

## High Sodium and Low Calcium, Vitamin D, and Physical Activity in Children With Developmental Disorders and in the General Population

*S. Ekvall, V. Ekvall*

**Purpose of the Program:** To determine the extent of high dietary sodium intake (competing with calcium absorption) compounded with low dietary calcium and vitamin D intake and low physical activity.

**Method:** Calculating 3-day diet and physical activity diaries and weights and heights of 218 children with developmental disorders and children in the general population.

**Result:** The percentage of children with developmental disorders whose intake was above or below the recommended daily allowance (RDA) was compared with that of children in the general population. Children with developmental disorders were more likely to consume excessive sodium (more than 400% of the RDA) (94% compared with 81%); low dietary calcium (25% compared with 22%); low vitamin D (60% compared with 43%); low dairy group (62% compared with 54%); daily soft drinks, frequently replacing milk (35% compared with 59%); and vitamin and mineral supplements (36% compared with 26%). They were also more likely to have low physical activity (59% compared with 40%) and to be overweight or obese (24% compared with 35%).

**Conclusion:** The extremely high sodium intake (competing with calcium absorption) and low calcium and vitamin D consumption can give rise to low bone density (later osteoporosis) and possible hypertension. Industry must produce processed foods with lower sodium content (such as vehicles using magnesium, potassium, and calcium, which already are low in the diet). The U.S. National Select Committee first suggested this change in sodium in the Dietary Goals (now guidelines) in 1977 (a 55%–85% reduction in sodium was recommended but has not yet been addressed).

**Learning Objective:** Participants should be able to describe the importance of providing children with a healthy diet that has less sodium, more calcium and vitamin D intake, and adequate physical activity for proper bone density to reduce osteoporosis and hypertension.

Wednesday, November 29, 2000

## Livable Community Blueprint: Health Bridges the Gap Between Land Use and Transportation Planning

A. Hines, G. McGinnis, C. Crump, J. Emery

**Purpose of the Program:** To provide planning for physical resources in the community that allows for biking and walking to increase physical activity levels.

**Setting:** The Cabarrus Health Alliance (CHA), Cabarrus County, and the cities of Concord and Kannapolis came together to design a master plan for the provision of public parks and recreation needs. Staff from these agencies met monthly for a year to determine common needs with regard to planning for resources to promote physical activity.

**Intervention:** CHA staff set out to ensure that environmental resources that promote biking and walking were included as part of this parks and recreation plan. CHA staff proposed a plan to develop a bicycle and pedestrian plan (using the community walking and bicycling suitability assessment tool developed by Emery et al. and supported by the North Carolina Cardiovascular Health Program) to local governmental staff and the staff of the Cabarrus-South Rowan Metropolitan Planning Organization (MPO).

**Outcome:** The MPO increased funding for bicycle and pedestrian transportation planning from \$1,500 to \$30,000. In turn, the original collaborators partnered with the MPO to integrate pedestrian and bicycle transportation planning into the original parks and recreation plan. The new plan came to be known as the "Livable Community Blueprint."

**Conclusion:** Health promotion advocates can potentially facilitate collaboration among local governments and avoid fragmented planning efforts for pedestrian and bicycle transportation. Chronic disease initiatives can positively influence public policy regarding development of environmental resources.

**Learning Objective:** Public health professionals will learn new strategies for approaching public policy makers to positively affect environments that support physical activity.

Wednesday, November 29, 2000

## Youth Tobacco Survey: Monitoring and Evaluating Tobacco Control Programs

C. Warren, E. Pevzner, C. Ahern, M. Law, H. Ryan, L. Zinner

**Purpose of the Program:** To monitor and evaluate the impact of state-based tobacco control programs among young people.

**Background:** The Youth Tobacco Survey (YTS) was designed by and for states to provide baseline and trend data necessary to support the design, implementation, and evaluation of tobacco control programs.

**Method:** Twenty-six states conducted the YTS during the spring of 2000 as part of their surveillance and evaluation plans. The YTS provides state-specific data on youth knowledge, attitudes, and behaviors regarding tobacco use.

**Result:** Findings from states that conducted the YTS during the spring of 2000 will be presented. Results from the 2000 surveys will present both statewide and sub-state (health region level) data that describe the magnitude of tobacco use among youth.

**Conclusion:** The results from states that conducted the YTS during spring 2000 demonstrate 1) the usefulness of the YTS as a surveillance and evaluation tool, and 2) the link between YTS data and the key elements of CDC's *Best Practices for Comprehensive Tobacco Control Programs*.

**Learning Objective:** Participants should be able to recognize and describe the links between the data generated by the YTS and the core components of a comprehensive tobacco control program.

Wednesday, November 29, 2000

## Evaluation of a Congestive Heart Failure Disease Management Program

*Y.F. Kuo, J.F. McAna, D.C. Lyons*

**Purpose of the Program:** To evaluate the success of the Congestive Heart Failure (CHF) Connections Program in improving health status and reducing hospital stays and emergency room (ER) visits, the average inpatient length of stay, and overall costs for members in the program.

**Background:** The CHF Connections Program is a care management program designed to improve care, reduce morbidity, and encourage monitoring and other preventive measures among Independence Blue Cross (IBC) members with CHF.

**Design:** A matched case-control study of IBC members with CHF. Case-patients were defined as members who enrolled in the program before January 1, 1999 (n=710.) Controls were defined as members who did not enroll during the same time period (n=710). Matching was based on preprogram average inpatient hospital use (days per month) and average total cost per month. Multivariate regression, logistic regression, and Cox proportional hazard models were constructed to identify factors associated with changes in the average costs per month, hospitalizations, inpatient days per month, ER visits, and times to the 1<sup>st</sup> and 2<sup>nd</sup> ER events and hospitalization.

**Result:** Case-patients had significantly higher risks than controls for earlier 1<sup>st</sup> and 2<sup>nd</sup> ER visits and hospitalization; however, they were less likely to be hospitalized, had lower average inpatient days per month, and had lower monthly mean total costs in the postprogram period.

**Learning Objective:** Participants should gain a better understanding of disease management programs and the techniques used to evaluate them, particularly programs designed to improve outcomes in CHF.

Wednesday, November 29, 2000

## New York State Department of Health Hunger Prevention and Nutrition Assistance Program

*D. McNamara*

**Purpose of the Program:** To enhance the accessibility and availability of nutritious food and nutrition education programs to New York's most needy residents.

**Setting:** Emergency food relief organizations (EFROs), Just Say Yes to Fruits and Vegetables Program (JSY), Nutrition Resource Managers (NRMs) and public health nutritionists ensure that low-income residents of New York receive nutritious food and nutrition education.

**Intervention:** The Hunger Prevention and Nutrition Assistance Program (HPNAP) continues to intensify its existing focus on educating the very poor in developing healthy dietary behaviors. Low-income populations have been identified as lacking in dairy products, fruits, and vegetables. Low-income women and children have been identified as iron deficient. Childhood obesity is a national concern. HPNAP assists 2,100 EFROs in providing nutrient-dense foods and educating food pantry users in nutrition and food preparation.

**Outcome:** HPNAP assists 2,100 EFROs in providing 102 million meals to needy residents of New York. JSY program provides nutritional and food preparation education to food pantry users throughout the state. Nutritionists encourage consumption of low-fat milk. NRMs provide food safety and sanitation training, cooking demonstrations, and nutrition education to food pantry clients and staff. Gleaning projects harvest and distribute fresh fruits and vegetables to soup kitchens and food pantries. Seed grants provide funding for innovative projects aimed at feeding the needy. Minimum nutrition standards ensure that HPNAP funds are used to provide nutritious foods

**Conclusion:** HPNAP focuses on the long-term health of low-income persons through an intense focus on nutrition and dietary habits.

**Learning Objective:** Participants can compare the efforts of their states to those of New York and consider methods used by HPNAP to meet the nutritional needs of the very poor.

Thursday, November 30, 2000

## Visual Communications Solutions

*M. C. Barringer*

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This poster illustrates common design problems and solutions associated with preparing scientific visual presentation materials. Participants will see examples of effective design of charts and graphs, use of color, typeface choices, and other issues related to design. The poster will show through examples how and when (and when not) to incorporate graphics and photos into presentations, as well as how to use simple graphics instead of words to illustrate messages successfully. Handouts will be available.

Thursday, November 30, 2000

## The National Meals on Wheels Foundation and Vegetarian Resource Group Healthy Meals Initiative: Two-Year Follow-Up

*S. Havala, C. Conway*

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**Purpose of the Program:** To assist meal programs in complying with the U.S. Dietary Guidelines for Americans and to accommodate food preferences of an ethnically diverse client base.

**Setting:** A collaboration of the National Meals on Wheels Foundation, the National Association of Nutrition and Aging Services Programs (NANASP), and the Vegetarian Resource Group resulted in development of a vegetarian menu set for use in senior feeding programs. The New York City Department for the Aging implemented the menu set at more than 25 congregate meal sites and homebound feeding programs in the neighborhoods of Harlem, Washington Heights/Inwood, and the Upper West Side (Manhattan Valley and City College).

**Intervention:** A 4-week, lacto-ovo vegetarian menu cycle was developed that featured one hot, main meal per day. A packet was created containing the menu set, sample quantity vegetarian recipes, and a handout on vegetarian nutrition for older adults. Two thousand packets were distributed to NANASP members, Meals on Wheels programs and other aging services providers, health care professionals, and older people. Packets were distributed at health fairs, professional association meetings, through mass mailings, and in response to individual and organizational requests.

**Outcome:** A vegetarian menu set appropriate for use in senior food service was developed and carried out at sites throughout New York City. A set of tips and recommendations was developed for practitioners and others seeking to bring about similar changes in other feeding programs.

**Conclusion:** Implementation of the program resulted in many successes, some challenges, and a wealth of lessons learned.

**Learning Objective:** Participants should be able to discuss the advantages of incorporating plant-based foods into meal programs and describe key tips for successfully introducing healthful menu items into food services.

Thursday, November 30, 2000

## Tracing and Recruiting a National Sample of Women Veterans for a Mammography Intervention Trial

*S.W. Vernon, D.J. del Junco, J.A. Tiro, V.R. Rabinus, L. Bastian, W. Chan*

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**Purpose:** To pilot test the methodology for tracing and recruiting participants for a nationwide educational intervention trial to increase mammography screening in U.S. women veterans.

**Background:** The Department of Veterans Affairs provides comprehensive health care for veterans; however, few data are available to guide the development of gender-specific health services. The lack of data is greatest for services related to the prevention and early detection of chronic diseases like breast cancer.

**Method:** A random sample of 259 women over 52 years of age was drawn from the National Registry of Women Veterans, a database containing 1.6 million records of women who served in the U.S. military from WW II on. Vital status and current contact information were ascertained from the Social Security Administration, Experian (a tracing agency), and the IRS Taxpayer Address Retrieval System. Recruitment letters were mailed to the veteran's last known address. Address correction was requested from the local postmaster and nonrespondents with listed telephone numbers were called.

**Result:** Addresses were acquired for 216 of 228 surviving candidates. Between Experian and the IRS, 96 addresses differed and 40 were unique. Of 125 candidates successfully contacted within 2 months, 36 were ineligible. Of the 89 eligible candidates, 85% completed the baseline survey.

**Conclusion:** Successful contact with study candidates requires multiple, overlapping tracing strategies. Recruitment methods are being refined for a large-scale study of 7,500 women for a 3-year randomized trial.

**Learning Objective:** Participants will understand the methodology used to trace and recruit a nationally representative sample of women for population-based research.

Thursday, November 30, 2000

## Progress Toward Nationwide Cancer Surveillance: Evaluation of the National Program of Cancer Registries, 1994–1999

*M. Hutton, L.D. Simpson, D.S. Miller, H.K. Weir, K. McDavid, H.I. Hall*

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**Objective:** The National Program of Cancer Registries (NPCR) recently completed its first 5-year project period. The purpose of funds awarded was to enhance state cancer registries to become statewide, population-based registries that meet minimum standards of completeness, timeliness, and quality; or for those states where there were no central registries at the start of the project period, to plan and develop registries that meet such standards.

**Method:** Program objectives and criteria were developed based on the purpose for which funds were awarded. A “before and after” evaluation design was selected. We compared the status of funded registries at three time periods: baseline, fall 1997, and fall 1999. Information was collected by Centers for Disease Control and Prevention (CDC) staff through review of documents and communication with grantees.

**Result:** Notable progress has been made in the number of states that have the following attributes: a statewide central cancer registry, required laws and regulations, at least 90% of required data elements, a standardized record layout, improved indicators for data quality, and an annual report. Progress has been slower for some other attributes. Additionally, the evaluation methods used did not permit direct assessment of data completeness, timeliness, and quality.

**Conclusion:** A critical framework for cancer surveillance in the United States is in place. The evaluation criteria measured processes believed by experts to be associated with improved outcomes. During the program’s second 5 years, submission of core data elements to CDC by funded registries will permit direct assessment of program outcomes. Monitoring of selected process indicators will continue.

**Learning Objective:** Participants should be able to describe the purpose of funds awarded to state health departments participating in CDC’s NPCR, and name at least one improvement seen since the NPCR began.

Thursday, November 30, 2000

**Recent Trends in Thyroid Cancer in the United States***L.R. Armstrong, G. Clutter, H.I. Hall*

Thyroid cancer is a rare condition. Not all histologic types have a favorable prognosis. Little information on incidence trends has been published in recent years. We used the National Cancer Institute's SEER data to determine the average annual incidence rate from 1973 to 1997 by sex, age, race, and subtype. There were 27,695 cases of thyroid cancer reported to the National Cancer Institute's (NCI's) Surveillance, Epidemiology, and End Results (SEER) registries. Women were more than twice as likely to have thyroid cancer as men (6.4/100,00 vs. 2.6/100,000). Rates for men and women combined were higher for whites (4.5/100,000) than those for blacks (2.7/100,000) but lower than for all other races combined (6.7/100,000), although neither rate differed significantly from that for whites. Papillary carcinoma was the most common type of thyroid cancer (76% of all thyroid cancers), followed by follicular carcinoma (13%), medullary (3%), and Hurthle cell carcinoma (2%). Other histologic types were more rare. From 1992 to 1997, the estimated annual percentage change (EAPC) in age-adjusted incidence rates rose significantly for all thyroid cancers combined (2.8%), for papillary thyroid carcinoma (3.9%), and for Hurthle cell carcinoma (10.6%). The rise in papillary thyroid carcinoma was due to a significant rise in incidence rates for white females (joinpoint regression [JPR]: 7.1%, confidence interval [CI] 2.5–11.9) and for black females (JPR 2.3% CI 1.1–3.5). For Hurthle cell carcinoma a significant increasing trend was seen among white females (JPR 16.6% C.I. 8.1–25.7). The reasons for the apparent increase in papillary and Hurthle Cell carcinoma in these groups are unknown and warrant further investigation.

Thursday, November 30, 2000

**Individualized Activities for Dementia Behavior***A. Kolanowski*

More than 4 million elderly people suffer from some form of dementia. More than 50% of these people exhibit behaviors such as hitting, wandering, or screaming during the course of the disease. The purpose of this study is to test an activity intervention for dementia behaviors that is derived from the Need-Driven Dementia-Compromised Behavior Model. An interrupted time-series design is used to investigate therapeutic patterns of behavioral change that result from the individualized intervention. It is hypothesized that the intervention, which is based on the person's cognitive ability, functional status, and premorbid personality, will result in more engagement, more positive mood, less negative affect, and fewer dementia behaviors. Dependent measures of engagement (time on task), mood (Dementia Mood Picture Test and Philadelphia Affective Rating Scale) and dementia behaviors (Cohen-Mansfield Agitation Inventory) are taken three times per day at stable intervals across 11 weeks in a subject meeting restrictive sampling criteria. The primary analysis uses autoregressive integrated moving average (ARIMA) methodology to test the hypotheses. This within-person analysis will provide data that will help clinicians match the "right" treatment to the "right" patient.

Thursday, November 30, 2000

## Arthritis Prevalence and Activity Limitation Among Utah Adults

R. Tanner, R.C. Bullough, L. Larsen, M. Friedrichs

**Purpose of the Program:** To measure the proportion of Utah adults with arthritis and the proportion of these experiencing activity limitation due to arthritis.

**Background:** Arthritis is the largest contributor to disability in the United States, but prevalence measurement remains elusive. Many with arthritis suffer activity limitation, and a key *Healthy People 2010* objective is to reduce this proportion. Recently some states began to use the Behavioral Risk Factor Surveillance System to assess these variables. This abstract represents the first report of these data in Utah.

**Method:** First quarter 2000 BRFSS data from 840 surveys were used to determine arthritis prevalence among Utah adults and to determine the proportion experiencing activity limitation (AL) due to arthritis. AL comparisons were made with the population of survey respondents without arthritis.

**Result:** Arthritis (chronic joint symptoms plus diagnosed arthritis) was reported by 10.9% of respondents; 21.5% of these report AL on 1–5 days per month, and another 22.6% reported AL on 6–30 days per month. By comparison, 10.4% of persons without arthritis reported AL on 1–5 days per month and 4.3% reported AL on 6–30 days per month.

**Conclusion:** These preliminary data suggest that nearly one in three Utah adults suffer from arthritis and that they experience greater AL than those without arthritis. It is important to note that by third quarter 2000, analyses will include approximately 2,160 surveys.

**Learning Objective:** Readers should be more aware of the high prevalence of arthritis in Utah and the association between arthritis and activity limitation.

Thursday, November 30, 2000

## Knowledge, Attitudes, and Beliefs of Utah Women Regarding Arthritis Self-Help Counseling

*N.E. Bissonette, R.C. Bullough, L. Larsen*

**Purpose of the Program:** To identify barriers limiting participation by Utah women with arthritis in the Arthritis Foundation Self-Help Course (AFSHC).

**Background:** Arthritis is the largest contributor to disability in the United States. The Arthritis Foundation Self-Help Course has repeatedly been shown to improve arthritis-related outcomes. However, less than 1% of those with arthritis have taken a self-help course.

**Methods:** Four 90-minute focus groups (30 total participants) were professionally facilitated to assess knowledge, attitudes, and beliefs regarding the AFSHC. Participants were women with arthritis living in Utah, aged 41–70 years.

**Results:** It was difficult to identify recurring themes regarding the AFSHC. However, concerns regarding physician knowledge of, and referral into, the AFSHC were frequent. Many participants were unaware of the AFSHC, had not been referred by their physicians to arthritis education or self-help training, were dissatisfied with their physician's information and their lack of referral process, thought that physician referral to these programs would encourage participation, and had difficulty finding useful information on their own.

**Conclusions:** General and professional awareness information regarding the AFSHC is clearly needed. Also, it appears that physicians are not referring patients into the AFSHC. Participants agreed that physician referral into AFSHC would increase participation in these courses.

**Learning Objective:** Participants should become aware of the Arthritis Foundation Self-Help course and understand some factors limiting course participation.

Thursday, November 30, 2000

## Combining Geographic Information Systems and Market Data for Segmenting and Profiling Target Populations

*F. Fridinger, A.E. Lubenow*

**Background:** Geographic Information Systems (GIS), public health data, and syndicated market research data can be used to complement each other in the design of health communications efforts for at-risk populations. Syndicated marketing databases containing proprietary and public information about population sociodemographic characteristics, consumer behavior, media habits, and lifestyle activities are widely used in the commercial sector to segment the population into target audiences for message development and delivery. These databases also can be used for precise targeting of audiences in health communications efforts.

**Method:** A primary use of market data is that of audience segmentation and profiling. The databases are used to identify segments of the population to target with the message, and to identify audience segments based on interests, lifestyle, and media habits to design messages with the appropriate content, design, and media channels.

**Result:** This presentation will provide an overview of how the integration of different kinds of market data within the geographic structure of U.S. census data provides a comprehensive framework for communication planning and evaluation. The presentation will show how the Potential Rating Index by Zip Markets (PRIZM), a micro-geographic consumer targeting system that uses demographic and aggregated consumer demand data, helps in characterizing the optimal communications media for delivery of health prevention messages. Case studies will be offered by the Centers for Disease Control and Prevention (CDC) and the National Cancer Institute's Consumer Health Profiling Project, which uses the MEDSTAT Group/Inforum's database that incorporates the use of PRIZM clusters to identify who is in need of cancer information and outreach and where are they located.

**Learning Objective:** Participants will be able to discuss the importance of audience segmentation in the overall strategic planning process; explain how a geodemographic marketing database can be used to identify, locate, and profile target audiences; identify the main components of the PRIZM lifestyle clustering system; and describe how CDC and the National Cancer Institute have used consumer health profiles to reach audiences in need of cancer prevention and detection messages.

Thursday, November 30, 2000

## Methods Used to Locate 1,650 Women for a Mammography Rescreening Study

*J.K. Bobo, J. Schulman*

**Purpose of the Program:** The National Breast and Cervical Cancer Early Detection Program (NBCCEDP) provides free mammograms to age-eligible, low-income women.

**Background:** NBCCEDP data suggest many enrolled women fail to complete annual rescreening despite the availability of free examinations. This is a significant public health concern.

**Method:** To identify factors that predict annual mammography in this population, we are conducting a retrospective cohort study of 2,500 randomly sampled NBCCEDP enrollees. Each sampled woman was mailed an invitational letter 30 months after she received a free mammogram in 1997. The first 1,650 women were eligible for this letter by March 1, 2000. The proportions of these women who were successfully contacted by September 1, 2000, will be reported. Stratified results are based on age, race, ethnicity (Hispanic or non-Hispanic), and result of mammogram in 1997. To inform similar data collection efforts, we also present the subject tracing methods (e.g., Trans Union, National Change of Address Database, Telematch) found most useful and other measures of the amount of effort required (e.g., number of letters sent and telephone calls made).

**Result:** About 55% of the sampled women were white, 20% African American, 23% Hispanic, and 2% other. Because of the time-dependent study design, data analyses could not be completed before the abstract submission deadline.

**Conclusion:** Good study participation rates can be achieved among older low-income women, but significant investments in staff time and resources are required.

**Learning Objective:** Participants will be able to describe optimal techniques and the amount of effort required to obtain satisfactory response rates in a population-based study involving multiethnic, low-income women who may be migratory.

Thursday, November 30, 2000

## The Prevalence of Cardiovascular Risk Factors Among Women in Mississippi During the 1990s

C.C. Addison, G.D. Hughes, M.E. Andrews, R.J. Garrison, J.A. Cameron, B.W. Campbell

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**Objective:** This study analyzes the practices of women in Mississippi in relation to four behaviors associated with the occurrence of cardiovascular risk factors and disease in adulthood. Data obtained from the Youth Risk Behavior Survey (YRBS) and the Behavioral Risk Factor Surveillance System (BRFSS) served to provide estimates of the practices of women in Mississippi during the 1990s.

**Method:** Data derived from the administration of the YRBS and the BRFSS were examined. High school students and adults were assessed for behavior practices, and state estimates were compared.

**Result:** Obesity greatly contributes to Mississippi's ranking as the leader in deaths caused by cardiovascular disease. A lack of physical activity and unhealthy diets combine to compound the problem. Risk profiles vary between African Americans and whites. The percentage of adolescent African American females practicing health risk behaviors relating to diet is higher than for white females, but the percentage involved in smoking is lower than for adolescent white females.

**Conclusion:** Mississippi women can make a commitment to staying healthy by staying physically active and improving dietary habits. Without changes in lifestyle, adults and children increase the risks of high blood pressure, heart disease, diabetes, and other debilitating diseases that severely limit productivity and decrease the quality of life. Becoming more aware and making the commitment to change would certainly promote the health of women in Mississippi and decrease the disease burden identified with populations at risk.

**Learning Objective:** Participants will be able to recognize health risk behaviors that must be changed.

Thursday, November 30, 2000

## Hispanic Clients and Translators Recruited by Partnering to Present Breast and Cervical Cancer Information in Spanish

*R. Adams, J. Church, C. Hoelscher*

**Setting:** Breast and Cervical Early Detection Program, Southwest Utah Public Health Department (SWUPHD), St. George, Utah

**Purpose:** To provide education to non-English speaking, rural, low-income Hispanic women to increase knowledge about breast and cervical cancer and availability of screening services, promote the importance of early detection, recruit Spanish-speaking translators for the clinic, and build community relationships.

**Method:** The SWUPHD educator recruited a premed student to translate and deliver the Utah Cancer Control Program/American Cancer Society breast and cervical cancer presentation in Spanish. The educator developed a partnership with a rural church women's group to facilitate and promote the presentation. The 1-hour interactive session was copresented by the student and educator to Hispanic women's groups.

**Result:** Thirty-one percent of the women who attended the presentation made and kept appointments for cancer screening. Additionally, one cancer was detected, two Spanish translators were recruited, and the number of Hispanic clients seen since the previous program year increased by 100%.

**Conclusion:** Developing partnerships with students and community members who speak Spanish is an effective way to deliver breast and cervical cancer early detection information and increase screening services among a rural Hispanic group.

**Learning Objective:** Participants should be aware of a method to educate and serve low-income Hispanic groups.

Thursday, November 30, 2000

**North Carolina Restaurant Heart Health Survey***P. Bors, S. Malek*

**Purpose of Program:** To develop and pilot-test a survey to assess restaurant policies and practices that support heart health.

**Background:** Americans are increasingly consuming a greater proportion of meals in restaurants. Environmental tobacco smoke (ETS) is classified as a carcinogen and health threat to children. Assessing the health aspects of restaurants and developing relevant indicators of their support for health will contribute to efforts to improve restaurant environments. New methods are needed to establish community-level surveillance indicators for cardiovascular health and cancer prevention.

**Method:** In 1999, the North Carolina Cardiovascular Health Program developed an observational survey that was administered by local health department staff to assess smoking policies and menu labeling of “healthy” foods.

**Result:** Seventeen health departments surveyed approximately 1,800 restaurants. Health departments used environmental health and health promotion staff, students and volunteers to survey restaurants. Thirty-four percent of establishments protect customers and restaurant employees from ETS with either a “smoke-free” policy or separately ventilated smoking section. Twenty-six percent of restaurants have menu items (or a special menu section) labeled as “healthy” (e.g., low-fat, lite).

**Conclusion:** Local health departments are willing and capable partners in the effort to assess support for health within restaurants. Findings from the data indicate that relatively few restaurants make provisions for customers and employees to avoid ETS, and even fewer provide menu cues to help customers choose healthy food options.

**Learning Objective:** Participants will be able to understand the need for surveillance indicators of restaurants’ support for health and the utility of collecting such data for programmatic purposes.

Thursday, November 30, 2000

## New York State Department of Health Local Coalition Monitoring System: A Progress Report

*R. Cañamar, B.D. Fisher*

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**Purpose of the Program:** To provide quality assurance and continuous monitoring of local intervention efforts through a simple reporting mechanism.

**Background:** State-level departments of health often provide community-level programs through local organizations with limited evaluation. High quality and consistent reporting on program efforts and progress tends to be given lower consideration than it deserves. Despite these difficulties, the New York State Healthy Heart Program (NYS/HHP) has successfully established a simple reporting system for its local cardiovascular health coalitions.

**Method:** On the basis of more than 2 years of experience using the system, the NYS/HHP has improved the system by incorporating new areas of surveillance and using a simple “run-time” database system.

**Result:** NYS/HHP contractors now have the ability to track their own progress and generate on-demand reports. NYS/HHP administrators have a mechanism to link contractor activities with explicitly identified objectives and outcomes, and a uniform basis by which to compare the progress of disparate intervention programs. Finally, the automated nature of the data archiving system has greatly diminished the need for day-to-day data management.

**Conclusion:** The results of these efforts have provided a simple and universal set of reporting requirements for all NYS/HHP contractors. Because of the success of these efforts, the New York State Tobacco Control Program has adopted this approach.

**Learning Objective:** Participants should be able to use this simple method of monitoring community-level programs.

Thursday, November 30, 2000

## A Process Evaluation for Monitoring Community Coalition Activities

M.L. Chalmers, I. Wiggs, L. Newcomb-Hagood, P. Eggers, D. Hawkins,  
R.A. Housemann, R.C. Brownson

**Purpose of the Program:** To conduct a process evaluation of a monitoring and feedback system for community coalitions targeting chronic disease risk reduction.

**Setting:** Community coalitions in six rural Southeast Missouri (SEMO) counties collaborated with the Missouri Department of Health (MDOH) and Saint Louis University (SLU) to track coalition events using the process described in the CDC manual, *Evaluating Community Efforts to Prevent Cardiovascular Diseases*.

**Intervention:** MDOH staff recorded monthly coalition activities in event logs, which were sent to SLU for coding. Unclear entries were clarified by checking with local MDOH staff. Events were plotted cumulatively and shared with coalitions as a measure of their progress. Key participants were interviewed to assess satisfaction with the recording process and develop solutions for improving the efficiency and accuracy of the logs.

**Outcome:** Several changes were made to the event logs to better track activities. A new code was created for coalition-building activities that promote the coalition in the community. Additional description items were added to combine multiple types of activities into one log. Cumulative charts show rises in community actions and changes following important events such as the hiring of key coalition staff.

**Conclusion:** This process evaluation unveiled several methodological challenges to event log recording and coding. Using event logs to track activities can be time-intensive. Incomplete or unclear events made coding difficult and further delayed the timeliness of coding and feedback to coalitions.

**Learning Objective:** Participants will be able to describe the use of event logs to record community efforts to reduce chronic disease and use the lessons learned to improve future tracking of coalition activities.

Thursday, November 30, 2000

## Medical Students' Attitudes Toward Prostate Cancer Screening: A Pilot Study

*C. Delnevo, S. Muthurajah, S. Marcella, S. Coughlin*

**Purpose of the Program:** To pilot test an electronic survey to assess future physicians' attitudes toward, and beliefs about, prostate cancer screening.

**Background:** Physician and patient decision making for prostate cancer screening is a difficult task, given the lack of consensus on the issue. Examining physician characteristics that influence screening may yield useful information. Because such characteristics may develop during medical school, students are an interesting population.

**Method:** Medical students were surveyed electronically. The questionnaire addressed demographics, disease prevention attitudes, and items specific to prostate cancer screening. Students were recruited via E-mail and directed to the survey Web site to complete the questionnaire; 115 students participated.

**Result:** Although attitudes toward the importance of prostate cancer screening were positive, 13 of 20 clinical preventive services had higher mean ratings. Perceived importance of prostate-specific antigen (PSA) screening decreased with class year ( $P < .01$ ). Most students believed that early diagnosis improves survival (89%); approximately half believed that digital rectal exams (DRE) (56%) and PSA (46%) were accurate screening tests; and few (28%) reported an increased likelihood to screen African American patients. Beliefs consistent with the weight of scientific evidence correlated with class year.

**Conclusion:** This pilot study lays the foundation for a nationwide study of 28 medical schools. Results suggest that medical education factors may influence prostate cancer screening practices; graduating medical students exhibited the critical thinking skills essential for complex screening issues. Understanding the influences of personal characteristics and the educational processes on physicians' practices can be of significant benefit in developing educational programs.

**Learning Objective:** Participants should be able to identify physician factors that may influence prostate cancer screening.

Thursday, November 30, 2000

**Determinants of Physical Activity Among Minority Women**

*A. Eyler, S. Wilcox, D. Matson Koffman, K. Evenson, B. Sanderson, J. Wilbur,  
J. Thompson, D. Young, J. Vest*

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**Purpose of the Program:** To review the literature for determinants of physical activity among women of various racial/ethnic groups.

**Background:** Despite decades of research demonstrating the important role of physical activity on health, most women are not regularly physically active. Rates are especially low for minority women.

**Method:** Studies from 1980 to 1999 were identified using various search methods. Studies were included if they examined determinants of physical activity or exercise and if the population comprised all adult women or, if both sexes were included, the articles included sex-specific analysis.

**Result:** Although a large number of studies included white women, there were fewer studies of black and Hispanic women, and even fewer of American Indian women. No studies that included Asian/Pacific Islander women met our criteria. The most studied determinants were sociodemographic and psychological; few focused on environmental and policy determinants. Social support seemed to be an overwhelmingly positive determinant in all groups of women.

**Conclusion:** On the basis of our findings, we recommend that future research include a more diverse group of women and focus on modifiable factors such as psychological, interpersonal, and environmental determinants and that future interventions should be informed by determinants research.

**Learning Objective:** Participants should be able to describe three main findings from this review on determinants of women and physical activity.

Thursday, November 30, 2000

## 1-800 I'M AWARE® Breast Care Helpline: A Model to Increase Awareness and Education

*W. Potts*

**Purpose of the Program:** To provide timely and accurate information to callers with breast health and breast cancer concerns.

**Setting:** The public was contacting the Susan G. Komen Breast Cancer Foundation offices directly with questions about breast health and breast cancer. Staff identified a need for a toll-free Helpline to address questions.

**Intervention:** In 1992, the 1.800 I'M AWARE® Helpline (1.800.462.9273) was established. It is answered by trained, caring volunteers with two staff members providing back up. Volunteers use facts about disease and treatment to assist callers in a way that motivates thoughtful, confident action. The Helpline also provides free educational materials to callers.

**Outcome:** Callers requesting educational materials receive a postage-paid evaluation card. The 1999 evaluation results indicate that callers are extremely satisfied with the service provided by 1.800 I'M AWARE and would call again or refer others to the Helpline (100%). Results also indicate that volunteer counselors are effective at answering callers' questions (93%) and educational materials are easy to understand (93%).

**Conclusion:** Using volunteers to answer the Helpline is an effective way to spread breast health messages. Since the Helpline's inception, volunteers have helped spread the lifesaving message of early detection and treatment to more than 244,000 women and men and have empowered patients to make informed decisions about their health.

**Learning Objective:** Participants will identify ways volunteers can be effectively trained as lay health educators and will be able to apply the 1.800 I'M AWARE Helpline model to other health topics or chronic diseases.

Thursday, November 30, 2000

## Body Mass Index, Exercise, and Risk of Diabetes Among American Indians in Oklahoma

Z. Bursac, D. Smith, M. Page

**Purpose:** To assess the association between diabetes diagnosis and self-reported height, weight and exercise habits, among American Indians in Oklahoma.

**Background:** Because of the small number of American Indians in the Oklahoma Behavioral Risk Factor Surveillance System (BRFSS), and lack of knowledge and information about the risk and risk factors of diabetes among American Indians in Oklahoma, there was a need for additional analyses of this high-risk group.

**Method:** The 1994 through 1997 Native American BRFSS in Oklahoma was analyzed to determine the weight and exercise characteristics of the American Indian population and diabetic subpopulation, and to assess some risk measures.

**Result:** More than half (54%) of all American Indians in Oklahoma are overweight, as compared to three-fourths (75%) of those with diabetes. Among American Indian people with diabetes in Oklahoma, 42% are obese. Moreover, 41% of all Native Americans reported no physical exercise. Among Native Americans with diabetes, more than half (56%) did not engage in any leisure time physical activity. This resulted in odds of diabetes diagnoses being 3.9 times higher among overweight persons (BMI>25), and 2.1 times higher among those who did not participate in physical activity.

**Conclusion:** Lack of physical activity and obesity are significant predictors of diabetes diagnoses in this population. As BMI increased, so did the percentage of persons who are sedentary, as well as the risk of diabetes diagnosis.

**Learning Objective:** Participants should be able to describe the need for more public health interventions combining dietary improvements and exercise to control the obesity epidemic and diabetes.

Thursday, November 30, 2000

## Cancer Screening in Women With Chronic Conditions: Results From MEPS

A. Greene

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**Purpose of the Program:** To determine factors that predict completion of breast and cervical cancer screening in women with chronic conditions.

**Background:** For women with chronic conditions, care often concentrates on the underlying disorder to the exclusion of cancer screening recommendations, despite lengthening life spans for those with chronic illnesses.

**Method:** Data from the Medical Expenditure Panel Survey (MEPS) were analyzed. Logistic regression was used to estimate the influence of chronic illness on the likelihood of screening completion. Chronic disease was measured using three different models.

**Result:** Women with chronic illnesses were less likely to receive breast cancer screening ( $P < .01$ ). Screening rates significantly decreased with increasing number of chronic conditions. A usual source of health care (odds ratio [OR] 1.6) and insurance (OR 1.4) increased the likelihood of screening. Age, race, and educational level were also associated with completion of screening. The relationship between Papnicolaou (Pap) test screening and chronic disease was insignificant. Results were similar when different measures of chronic illness were used.

**Conclusion:** Although cancer screening rates have increased, women with chronic diseases are less likely to be screened. Factors such as a disease-oriented health care system, reimbursement priorities, and provider and patient knowledge and attitudes about screening may lead to bias against screening chronically ill women.

**Learning Objective:** Participants should be able to describe common predictors of cancer screening in women with chronic illnesses.

Thursday, November 30, 2000

## Stage at Diagnosis of Cervical and Breast Cancer Among Korean Americans

*H.S. Juon, W. Park*

**Purpose of the Program:** To examine cervical and breast cancer stage at diagnosis among Korean Americans between 1992 and 1996.

**Background:** Cancer is the leading cause of death for Korean Americans aged 25–64 years. Among Korean American women, breast and cervical cancer are the most commonly diagnosed cancers. Early detection and treatment of cancer significantly reduces cancer mortality and enhances quality of life. However, there is a disparity in survival rates since most Korean women seek help in the late stage of cancer.

**Method:** Data from the National Cancer Institute's Surveillance Epidemiology and End Results (SEER) Program from 1992 through 1996 were analyzed to assess the cervical and breast cancer stage at the time of diagnosis.

**Result:** Between 1992 and 1996, 1,880 Korean American women were newly diagnosed with cancer. Eighty-one percent of those were women aged 40 and older. The women were diagnosed with breast cancer (19.8%) and cervical cancer (13.3%). For breast cancer, only 13.6% were diagnosed in Stage 0. More than two thirds of women (70.9%) were diagnosed in Stage I and Stage II. About 10% were diagnosed in a late stage. For cervical cancer, half of the women were diagnosed in Stage 0. About one third of the women (37.4%) were diagnosed in an early stage (I and II); 14.4% were diagnosed in a late stage.

**Conclusion:** The findings from this analysis indicate that cancer screening tests (e.g., mammography, Papnicolaou [Pap] testing) followed by timely and appropriate treatment can decrease cancer mortality for Korean women.

**Learning Objective:** Participants should be able to describe the need for early breast and cervical cancer screening tests among this underserved minority population.

Thursday, November 30, 2000

## Building Advocacy for Chronic Disease Prevention: The Will and the Way

W. Maas, J. Sherman

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**Purpose of the Program:** To strengthen collaboration among categorical chronic disease advocates and describe successful advocacy strategies in working with policy makers to develop capacity to prevent chronic diseases.

**Intervention:** This paper will discuss, from the wide experience of the authors as public health advocates, the process of developing strategies for working with policy makers to advocate for prevention of chronic diseases. Traditionally chronic disease advocates have used a narrow disease-specific approach to build support for prevention. This approach results in categorical funding and hinders support of innovative comprehensive approaches in preventing chronic disease. The use of a collaborative approach to advocate across the various chronic diseases would maximize results in building capacity to prevent chronic diseases comprehensively.

**Outcome:** Examples of successful collaborative approaches to building support for chronic disease programs will be described. Also, lessons learned at the national level will be contrasted and applied for use at the state level.

**Conclusion:** Informed policy makers at the state and federal levels are critical in ensuring effective public policy to reduce the burden of chronic disease. Their understanding of chronic disease, public health approaches to disease prevention and health promotion, and appropriate policies can be improved by reinforcing concepts that are common to a constellation of chronic diseases and conditions.

**Learning Objective:** Participants should be better able to describe successful strategies for building support for chronic disease programs.

Thursday, November 30, 2000

## **Situational Theory as a Foundation for Health Communications Campaigns**

*J. McGrath*

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**Purpose of the Program:** To reexamine the effects of health communications campaigns from the perspective of situational theory by exploring whether the campaigns, in addition to achieving their stated goals, may have also formed publics as an unintended effect.

**Background:** Situational theory explains how individuals form active publics who seek information to resolve a health problem. In addition to effects such as changes in attitudes, beliefs, and behaviors, some campaigns may have also resulted in other effects (such as the formation of a public) that were never examined.

**Method:** Three national health communications campaigns were examined: glaucoma, panic disorders, and asthma. Six focus groups, two in each area, were conducted with individuals who had been formally diagnosed with these conditions after the campaigns were initiated.

**Result:** The focus groups showed that health communications campaigns can form an active public committed to resolving their problem.

**Conclusion:** Situational theory can provide a foundation for planning and conducting health communications campaigns when 1) the health problem is not known to the individual; 2) the consequences of the health problem are short term or proximate; 3) the primary objective of the campaign is to mobilize people to seek diagnosis and treatment for a health problem.

**Learning Objective:** Participants should be able to identify when a health communications campaign based on situational theory will be likely to create an active public that seeks information to resolve a health problem.

Thursday, November 30, 2000

## Functional Limitations and Physical Activity Behaviors of Women in the North Carolina WISEWOMAN

K. Tawney, A. Ammerman, A. Jacobs, S. Aytur, L. Macon, B. Garcia, T. Keyserling, W. Rosamond

**Purpose of the Program:** To describe the physical limitations reported by older (aged >50 years) low-income women who participated in the North Carolina WISEWOMAN cardiovascular risk-reduction program.

**Method:** A telephone survey that included 10 physical function (PF) items from the Medical Outcomes Study (MOS) SF-36 health status inventory was completed by 532 participants from 22 health departments.

**Result:** Mean age of participants was 58 ± 7.9 years, 58% were obese, and 13% had known cardiovascular disease (CVD). Participants had at least one CVD risk factor (diabetes, hypertension, or hyperlipidemia). Sixty-five percent performed less than 30 minutes of moderate intensity physical activity (PA) per day. Forty-three percent reported that PF problems limited their ability to get 30 minutes of PA each day. PF scores were low compared with age-matched norms for women in the MOS.

**Conclusion:** Lifestyle activities were difficult for many women. Tailored messages that consider functional abilities may improve self-efficacy and help women set realistic PA goals. Interventions should include strength, flexibility, and seated exercises to improve PF.

**Learning Objective:** To increase awareness of the need for tailored PA interventions for special populations in a public health setting.

Thursday, November 30, 2000

## A Challenging Triangle in Efforts at Preventing and Controlling Osteoporosis Among Older Mexicans in Nuevo León

*J. Azoh*

**Purpose of the Research:** To highlight some realities pertaining to the prevention and control of osteoporosis facing some socially disadvantaged elderly Mexicans that are likely to have adverse effects on their health and mobility.

**Background:** This paper builds on the methods and findings of a recent pilot study on osteoporosis type I conducted among socially disadvantaged older Mexicans in the city of Monterrey and its outskirts from March to April 2000.

**Method:** Data are derived from interviews conducted during the recruitment of 130 participants at two institutions (Casa Club del Anciano and Cruz Verde) and direct observations performed at their residence in accordance with principles of research ethics involving human subjects.

**Findings:** Material conditions of existence, medical attention available, and unhealthy lifestyles characterized by lack of economic means; poor delivery of, and communication within, health services; and sedentarism appear to be a triangle likely to interact to increase bone loss in the elderly. Notably, the home environment is not totally safe since risk for falls was identified.

**Conclusion:** Though it has been found that knowledge is not a predictor of change in behavior, raising osteoporosis awareness remains of importance in this particular context. Improvements in residential settings not requiring substantial resources could significantly contribute to preventing falls and thus osteoporotic fractures implying multiple repercussions.

**Learning Objective:** Participants should be able to understand some specificities to the issues of prevention and control of chronic diseases in the context of Mexico, a developing country where demographic and epidemiologic transitions are under way.

Thursday, November 30, 2000

## Conducting Surveillance for Asthma Among Middle and High School Students

*U. Bauer, T. Johnson*

**Purpose of the Program:** To assess the feasibility and usefulness of collecting self-reported asthma information on anonymous school-based surveys of middle and high school students.

**Background:** Surveillance for asthma is difficult because of the high frequency of the condition and the lack of agreement on a case definition. Nonetheless, prevalence of asthma is thought to be increasing, and understanding the burden of the condition in the school-aged population is particularly important.

**Method:** Six questions from the International Study of Asthma and Allergies in Children (ISAAC) were added to the 2000 Florida Youth Tobacco Survey (FYTS), an annual, anonymous, self-administered, school-based survey of 23,000 public school-enrolled middle and high school students, to assess the frequency and severity of asthma in this population.

**Result:** Response rates were 82% for the middle school survey and 81% for the high school survey. Fifteen percent (15%) of middle and high school students reported having been told by a health care professional that they have asthma, 60% of whom reported having asthma symptoms within the past year. A total of 9% of students reported both a diagnosis of asthma and symptoms within the past 12 months. Overall, 15% of students reported asthma symptoms in the past 12 months without a diagnosis of asthma. One-third of students with an asthma diagnosis (36%) reported taking prescription medications to control their asthma, and 22% of those with symptoms but without a diagnosis reported taking prescription medications. One-third of students with an asthma diagnosis reported missing one or more days of school because of asthma in this school year. Students with asthma symptoms within the past 12 months (regardless of diagnosis) were substantially more likely to live in a home with smokers, to live in a home where smoking is allowed, and to report being exposed to environmental tobacco smoke.

**Conclusion:** The reliability and validity of self-reported data on asthma by middle and high school students should be ascertained. However, these data from the 2000 FYTS are consistent with other estimates of asthma prevalence among children. Further work remains in clarifying the usefulness of this approach to asthma surveillance.

**Learning Objective:** Participants should be able to describe the strengths and limitations of using anonymous, self-reported, school-based surveys for asthma surveillance.

Thursday, November 30, 2000

## A Community Needs Assessment of Diabetes in Central Ohio

*E. Bonfield, F. Banks, J. Grothaus*

**Purpose of the Program:** To determine the needs of Central Ohioans with type 2 diabetes and identify perceived barriers to appropriate health care.

**Background:** There is little information specific to the needs of Central Ohioans with diabetes. Ohio has the second highest rate of age-adjusted death due to diabetes in the nation; one in 10 deaths are diabetes-related. A local study was conducted to assess need and to develop services to prevent and control diabetes.

**Method:** The study included a literature review, three focus groups, and mail questionnaires sent to two samples consisting of 844 persons with type 2 diabetes.

**Result:** The age-adjusted death rate for black males in Columbus is more than twice that of white males (48.7 per 100,000 compared with 22.7) and more than four times the national mortality rate (11.9 per 100,000); the age-adjusted death rate for black females is 27.8 per 100,000 compared with 16 per 100,000 for white females. Diabetes complications had already developed in up to 54% of survey respondents by the time they were diagnosed or in treatment for diabetes. Seven factors were identified that contribute to higher rates of diabetes death and morbidity in Central Ohio.

**Conclusion:** The study indicates the need in Central Ohio for increased emphasis on early diagnosis and prevention of diabetes complications; it sets goals and suggests strategies for reducing diabetes-related mortality and morbidity.

**Learning Objective:** Participants will be able to use this study as a model to conduct a local needs assessment to define the prevalence of diabetes, examine perceived barriers to treatment, and help plan community interventions.

Thursday, November 30, 2000

## **Men's Voices: Report of a Statewide Men's Health Focus Group Project**

*J. Zoske, R. Brady, L. Couey*

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**Description:** Improving health care outreach to underserved men requires an understanding of their gendered and cultural health perspective. Insights from 14 focus groups with diverse men (aged 40 years and older; African American, Asian, homosexual, Hispanic, and rural) will be presented. Attitudinal, structural, and cultural access barriers are identified and outreach strategies are suggested. Co-sponsored by the New York State Department of Health Bureau of Chronic Disease Services and the American Cancer Society.

**Learning Objective:** To gain increased gender and cultural competencies regarding middle-aged men; to identify more effective communication and delivery strategies with adult men; to learn effective focus group methodologies ideas for community assessment of male needs.

Thursday, November 30, 2000

## Using Clinical Staff in a Breast Cancer Regional Partnership to Maintain Quality Medical Care

*R. Braun, P. Foster*

**Purpose of the Program:** To maintain quality medical care in the practices of the enrolled providers. If necessary, to institute and follow corrective action plans designed to improve care. Quality medical care for breast cancer services includes initial screening, timely rescreening, tracking and follow-up, referral, and education.

**Setting:** California Partnerships are located in 14 regional sites. To assess clinical practice, Partnership clinical visits are made to enroll providers in clinics, hospitals, and related facilities.

**Intervention:** Clinical staff visit enrolled providers and assess the care given to women who are receiving breast cancer screening. The providers are given feedback on specific standards of medical care and medical record content. For those providers who are not meeting the standards, a corrective plan is developed and shared with the provider. Follow-up contacts are made as needed.

**Outcome:** The quality of care provided to women who are receiving breast cancer screening services will be maintained at a high level.

**Conclusion:** Monitoring provider quality of care by regional Partnership clinical staff helps ensure that women seeking breast cancer screening are afforded high-quality, comprehensive services.

**Learning Objective:** Participants will be able to describe the site visit process, including developing a corrective plan, providing technical assistance, and determining the need for follow-up contact. Participants will also be able to list the components of the site visit. An information packet will be provided to each participant.

Thursday, November 30, 2000

## Developing and Maintaining a Provider Network to Assure Culturally Competent and Quality Care of Community Members at Highest Risk

*R. Braun, D. MacDonald*

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**Purpose of the Program:** The provider network analysis is designed to identify provider network gaps, to recruit new providers, to determine which providers are linguistically and culturally competent and why providers are not enrolling in the breast cancer screening program. This analysis is designed to enhance the maintenance of high-quality services to low-income, ethnically diverse, high-risk women.

**Setting:** Because of the uniqueness of each geographical area, each of the 14 breast cancer screening regions completes a separate network analysis.

**Intervention:** Data from the provider network analysis enables the Partnership clinical staff to determine how each local health care delivery system functions and to identify service gaps. Clinical staff are also able to identify providers to be recruited, particularly those who are most able to provide ethnically appropriate services.

**Outcome:** Breast cancer screening services to low-income, ethnically diverse, high-risk women are strengthened.

**Conclusion:** The provider network analysis gives each regional partnership a comprehensive picture of the provider characteristics in their geographic area and enhances new provider recruitment efforts.

**Learning Objective:** Participants will be able to identify the components of a provider network, list action that can be taken to strengthen the network, and use the data to improve services to the targeted women.

Note: A how-to packet will be provided to each participant.

Thursday, November 30, 2000

## **Bones 2000—Developing a Statewide Strategic Plan for Osteoporosis in Pennsylvania**

*M. Clelan*

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**Purpose:** To describe the process for the development of a statewide strategic plan on osteoporosis in Pennsylvania.

**Setting:** The Pennsylvania Department of Health requested physicians, representatives from local health departments, nurses, pharmaceutical representatives, and educators to meet and assist with the development of a statewide osteoporosis strategic plan.

**Intervention:** A call to action identifying persons committed to the prevention and education of osteoporosis issues was made on January 20, 2000. The identified representatives were given the charge to develop a strategic plan on osteoporosis for the upcoming budget period.

**Outcome:** Through the use of a template, a statewide strategic plan for osteoporosis is being developed outlining lead agency involvement, due dates, and implementation strategies. The anticipated completion date for the plan is targeted for August 30, 2000.

**Conclusion:** Upon completion of the strategic plan, Pennsylvania will have a detailed, goal-oriented plan describing activities that will increase awareness of osteoporosis, the risk factors, and intervention strategies. Additionally, the fulfillment of the plan will be working toward accomplishing the *Healthy People 2010* objectives for osteoporosis.

**Learning Objectives:** Participants will 1) understand the process used to develop a statewide strategic plan for osteoporosis in Pennsylvania and 2) describe the components of the plan.

Thursday, November 30, 2000

## Dietary Attitudes, Practices, and Interests: A Comparison of Limited Resource Populations With Non-Limited Resource Populations in North Carolina

*P.C. Dunn, J.M. Counihan, C. Thomas*

**Purpose:** The purpose of this study was to determine nutritional practices and interests of North Carolinians. In particular, findings will be used to design nutrition education materials and social marketing campaigns to increase healthy eating practices among the various income groups (Limited Resource and Non-Limited Resource groups).

**Background:** Consuming a healthy diet is widely recognized as an important determinant of overall health and well-being. Knowledge, while a first step to behavior change, is not per se significant to improve one's diet. Research indicates that many barriers and factors are associated with dietary practices, including lack of time and preparation skills, ethnicity, and socioeconomic status.

**Method:** A randomly selected population of 1,233 households from throughout North Carolina was surveyed by telephone to collect these data. The sample was generated by Survey Sampling, Inc., a nationally recognized firm located in Connecticut. To compare the non-limited resource households (NLRH) with the limited resource households (LRH), respondents had to answer both the income question and the number of dependents who live on the income question. A total of 941 respondents answered both these questions; 197 were in the LRH group, and 744 were in the NLRH group.

**Findings:** Meat is the most frequently eaten food for both limited resource population (LRP) and the non-limited resource population (NLRP). The number one reason for not eating vegetables for LRPC was cost; for NLRPC it was that vegetables take too long to prepare. The two influences on food shopping: for LRP—cost and what family likes for NLRPC was what family likes and healthy eating. When comparing what they wanted to know about healthy eating, the rank order of items was the same for both groups; however, the LRP expressed more interest in weight loss than the NLRP. When asked what they saw as benefits of healthy eating, the NLRP rated all items higher than the LRP. When asked to describe someone who eats healthy, the number one choice for LRP was “healthy,” whereas for the NLRP, “slim/slender” was the top choice. Both groups preferred mail and radio/TV as the chief means of receiving information to any of the 17 options with free written material and videos as the top forms to receive nutrition information.

**Learning Objective:** Participants should be able to identify the major differences between the limited resource population and non-limited resource population in nutrition practices, attitudes, and educational needs.

Thursday, November 30, 2000

## **A Systems Approach to the Prevention and Treatment of Chronic Illnesses**

*D.D. Etzwiler*

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**Purpose:** To promote an understanding and acceptance of a systems model for the delivery of quality long-term health care.

**Setting:** The Diabetes Control and Complications Trial (DCCT) was a successful scientific experiment that validated the importance of glucose control. Unfortunately, the translation of the process to the nation's delivery system has yet to be achieved. Almost 40 years of practice time (including the DCCT) has provided an opportunity to identify and articulate the essential components that together make up the chronic care system. An evaluation of each of the eight components as well as the system as a whole will be presented.

**Conclusion:** Single-component intervention (e.g., patient education, guidelines, outcome assessment) into the delivery of long-term care has a limited success rate. It is imperative to understand the necessity of employing a systems approach that is scientifically based, cost-effective, and patient-oriented. A new automobile may look attractive, but the omission of a single component (the engine) renders it of little use. So too, the delivery of quality chronic care demands the implementation of a complete and comprehensive system of care.

**Learning Objective:** Participants will develop an appreciation for a systems approach to long-term health care, and will learn the importance of the recognition and acceptance of patients as responsible members of the health care team.

Thursday, November 30, 2000

## Cardiovascular Risk Factor Assessment and Counseling by Family Practice Residents

*N. Gottlieb, J.L. Guo, M. Smith, P. Huang*

**Purpose of this Program:** To examine the cardiovascular risk factor assessment and counseling practices among family practice residents and explore possible determinants related to each.

**Background:** Tobacco use, nutrition, and physical activity patterns have been estimated to be the leading behavioral causes of death in the United States.

**Method:** One hundred ten family practice residents (response rate: 93.2%) from four Texas Department of Health-funded sites completed the survey. Multiple regression analysis identified determinants of tobacco, nutritional, and exercise counseling practices.

**Result:** A high proportion of residents reported that they usually or always assessed tobacco use (59.3%) and advised their patients to quit smoking (80.9%). They were less likely to report counseling behaviors, referrals, or follow-ups. Year of residency, perceived effectiveness, and the interaction between the two were significantly associated with tobacco counseling behaviors. Approximately one-fifth of the residents described usually or always (81%-100%) asking their patients about diet and exercise. Perceived effectiveness and attitude regarding lifestyle and behavior counseling were significant predictors of assessment of diet and exercise patterns with all patients, and of advice given to asymptomatic obese patients. Use of resources predicted counseling on both topics with all patients.

**Conclusion:** There is a need to teach, model, and provide feedback to residents regarding the assessment and counseling of smokers, with an emphasis on first-year residents. All residents' training should include discussion of attitudes and provide feedback to increase self-efficacy for nutrition and exercise counseling. Faculty should consistently use education resources to ensure counseling to all at-risk patients, obese or not.

**Learning Objective:** Participants should be able to list significant determinants of, and training implications for, counseling behaviors of residents related to the risks of tobacco, nutrition, and physical activity.

Thursday, November 30, 2000

## Reducing Physical Inactivity Among American Indians and African Americans

B. Leonard

**Setting:** Disparities are evident in the physical inactivity levels of American Indians and African Americans that result in high rates of obesity, cardiovascular disease, and type 2 diabetes. This presentation will describe the successful implementation of physical activity behavior change programs on the Navajo Indian Reservation and a predominantly African American Atlanta inner-city elementary school. The Tuba City Indian Health Service Hospital in Arizona has implemented the Take Charge Challenge (TCC) physical activity behavior change program for its staff for 2 years and has shared it with other reservation work sites. The Robert Shaw Elementary School in Atlanta has implemented the TCC for its faculty and a complementary school curriculum, Take Ten, for elementary schoolchildren in grades 1–5. TCC and Take Ten incorporate behavior change principles of goal setting, incentives, peer leadership, and social support. This presentation will demonstrate how these interventions can be modified to accommodate the unique cultural needs of their specific populations. Each intervention incorporates “stage of change” behavioral assessments and tracks *Healthy People Year 2010* physical activity objectives. Participation rates, behavior change, and process evaluation results will be presented.

**Learning Objective:** Participants will learn how to incorporate theory-based behavioral principles in a physical activity intervention that can be modified to accommodate the unique needs of different population groups and how to evaluate a physical activity intervention and incorporate *Healthy People 2010* objective tracking.

Thursday, November 30, 2000

## California Teen Eating, Exercise, and Nutrition Survey (CalTEENS): Behaviors Associated With Healthy and Unhealthy Lifestyles

A. Keihner, S. Foerster, M. Fierro, J. Gregson, S. Sugerman, M. Oppen, M. Hudes

**Purpose of the Survey:** To identify and assess the development of healthy and unhealthy lifestyles by examining critical data on adolescent dietary and exercise practices.

**Background:** CalTEENS is the only large-scale dietary and physical activity survey conducted in California with young people aged 12–17 years. CalTEENS is funded by The California Endowment and the U.S. Department of Agriculture.

**Method:** In early 1998, 1,213 randomly selected adolescents were interviewed using a computer-assisted telephone technique. CalTEENS includes self-reported consumption of fruits and vegetables, milk products, beef, beans, high-fat foods, fiber-rich foods, as well as physical activity, weight control, tobacco-related behavior, and attitudinal variables.

**Results:** Telephone interviews yielded a high response rate (i.e., 85%). Almost half of teens reported eating no vegetables, 29% met the physical activity recommendation of exercising vigorously for 1 or more hours a day, and 31% were overweight or at risk of becoming overweight. Strong positive correlations were found between self-reported behaviors and behavior change theoretical constructs. Teens who reported healthier eating and exercise habits also reported performing significantly better in school, experienced more success avoiding tobacco, and reported previously attending classes on the healthy benefits of physical activity. In general, as adolescents move toward adulthood, dietary and physical activity habits declined. The results demonstrate a problematic disparity among specific adolescent populations, such as irregular exercisers, smokers, and those who are overweight or at risk of becoming overweight.

**Conclusion:** These findings are similar to national trends. Critical factors related to adolescent eating and exercise practices should be identified to develop effective, theory-based interventions and policies leading to environmental changes that will facilitate healthy behaviors among teenagers.

Thursday, November 30, 2000

## Care For Diverse Populations: What We Know From the Research and What We Need to Know to Provide Better Care

*M. Parker*

**Purpose of the Program:** To provide an in-depth look at what we know from the research about meeting the health care, mental health, and behavioral health needs of diverse populations.

**Overview:** Between now and the year 2050, the populations of the United States will age significantly, and groups that are currently racial/ethnic minorities will become the majority. This overview of the very latest research data addresses the challenges of integrating ethnic data for quality care. It looks at what the research tells us about what culturally competent care is and how it affects the allocation of resources and public health monies; clinical trials; patient/provider communication; provider training; access to, and use of, services; and health promotion, wellness, and health education.

This poster provides a brief overview of the major points of what we have learned from the research literature, followed by a look at some specific research results for that topic. This overview also describes what researchers need to know about what does and does not work in meeting the needs of diverse populations (including racial/ethnic minorities, deaf and hard-of-hearing, those who are illiterate or functionally illiterate) in terms of medical and mental health and behavioral health care. It ends with a selected list of diverse resources (Web sites, books, reports, white papers, bookstores) of use to anyone interested in accessing more research about this topic.

**Learning Objective:** Attendees should have a much better idea of the needs of diverse populations in health care and how to think about changing their practices to better meet those needs.

Thursday, November 30, 2000

## Development of a Healthy Eating and Fitness Program Within a Large Health Care Delivery System

M. Striegel, R. DeGrazia, D. Taylor, T. Starz

**Purpose:** The Health Plan has implemented a Healthy Eating and Fitness Program for its general and overweight populations using a comprehensive education and active intervention approach.

**Setting:** The Health Plan is the insurance component of a large integrated health care delivery network having 198,787 covered lives, >3,700 physicians, and 17 merged hospitals. The Plan uses the “Accountable Provider” model as the basis for policy development using guidelines established by physician leadership.

**Intervention:** A four-tiered design consisting of educational materials, formal diet and fitness community programs, behavior modification classes, and surgical intervention was developed to provide population-based and individual interventions to 274 interested plan members identified through a questionnaire mailed to approximately 6,000 newly enrolled members. Key indicators for program monitoring included body mass index, blood pressure, cholesterol, triglycerides, blood glucose levels, and identification of obesity-influenced diseases including osteoarthritis of the knee, diabetes mellitus, hypertension, hypercholesterolemia, and low back pain.

**Outcome:** Health data including Healthy Eating and Fitness Program Key Monitors and *Healthy People 2010* standards were obtained using claims data and chart audits. Service utilization data and outcome measures including SF-12 were evaluated quarterly and provided to physicians.

**Conclusion:** A comprehensive Healthy Living and Fitness Program with general population and disease-specific components is being effectively implemented and measured in a large health care delivery system.

**Learning Objective:** Plan member participants will become more knowledgeable about specific areas of Healthy Eating and Fitness. Conference participants will understand the processes related to integrating individual and systemwide Healthy Eating and Fitness Program initiatives.

Thursday, November 30, 2000

## Using State Ranks to Assess Progress in Tobacco Control— Wisconsin, 1985–1999

*J.R. Schumacher, P.L. Remington*

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**Purpose of the Program:** To assess Wisconsin's progress in tobacco control from 1985 to 1999.

**Background:** State and national initiatives have attempted to reduce smoking and its health consequences. One way to assess Wisconsin's tobacco control efforts is to compare Wisconsin's rank in per capita cigarette sales and adult smoking prevalence over time.

**Method:** We assessed state "ranks" using two data systems: per capita sales data (Tax Burden on Tobacco, 1985–1999), and self-reported current smoking (BRFS, 1985–1998).

**Result:** Changes in per capita cigarette sales and smoking prevalence are evident nationally since 1985, declining from 122 to 90 packs per capita and 27.7% to 22.8%, respectively. Wisconsin rates also declined since 1985, declining from 107 to 84 packs and 24.6% to 23.3%, respectively. However, Wisconsin's rank in sales dropped from 11<sup>th</sup> lowest to 25<sup>th</sup> lowest and prevalence dropped from 4<sup>th</sup> lowest to 30<sup>th</sup> lowest, reflecting relatively greater sales and prevalence in Wisconsin than elsewhere. Other states, including Massachusetts, California, and Oregon, showed consistent improvements in rank during this time period.

**Conclusion:** Comparison of these ranked data showing a greater national decline in sales and prevalence than in Wisconsin suggests Wisconsin's advantage in tobacco control efforts has diminished. Using ranked data permits comparison in overall progress in tobacco control between states.

**Learning Objective:** Participants will be able to describe the benefit of using ranked data to compare progress in tobacco control efforts between states, in addition to being able to describe national and state-specific trends in per capita cigarette sales and smoking prevalence.

Thursday, November 30, 2000

## The Association Between Birth Weight and Asthma: A Study Using Longitudinal Health Care Records

L.W. Svenson, D.D. Sin, D.P. Schopflocher, L.M. Kmet, S.F.P. Man

**Purpose:** To assess the relative risk of developing asthma for a birth cohort using birth weight and gestation.

**Background:** Childhood asthma is a common chronic condition whose prevalence and severity appear to be increasing. Low birth weight may be an important potentially modifiable risk factor in the development of asthma. However, the findings have been inconsistent because of sample size, scope of studies, and attention to contributing factors, such as maternal age.

**Method:** Using data from the Alberta Health Care Insurance Plan (AHCIP), a cohort of 96,359 children born between April 1, 1985, and March 31, 1988, was followed to December 31, 1998. The AHCIP is a publicly funded universal health insurance plan covering the entire population of the province of Alberta, Canada. All demographic and fee-for-service physician contacts, emergency room visits, and inpatient hospitalizations were extracted. Birth weight and gestational age information was available for 92% (n=88,732) of records. Overall, 31% (n=29,839) of children had at least one asthma diagnosis, and 36% (n=10,812) had a single service. We divided asthma into two categories: *mild*, defined as at least one office encounter for asthma; and *moderate to severe*, defined as having at least one emergency department visit for asthma. There were 125,824 office visits and 19,598 emergency department visits. The rate of office visits for very-low-birth weight (<1500 g) children was 20.5 visits per 100 person-years (p-y), compared with 15.4 for children whose birth weight was 1500–2500g and 12.1 for children of normal or high birth weight. The rate of emergency utilization was 3.3/100 p-y for those with very low birth weight, 2.5 for those with low birth weight, and 1.9 for those with normal or high birth weight.

**Conclusion:** Birth weight is a significant determinant of asthma in the community. The risk was elevated for those with either very low birth weight or high birth weight.

**Learning Objective:** Participants should have an increased understanding of birth weight as a risk factor for asthma, as well as an improved understanding of the strength of longitudinal designs.

Thursday, November 30, 2000

## Cardiovascular Risk Reduction Practices in a Regional Heart Center in Appalachia

*J. Taylor*

**Purpose of the Program:** To assess secondary prevention practices in patients with cardiovascular disease and identify improvement opportunities.

**Setting:** A unique partnership of St. Mary's Hospital, the Centers for Disease Control and Prevention, West Virginia Bureau for Public Health, American Heart Association (AHA), and Merck & Co. to evaluate care of a selected number of patients with CVD at St. Mary's Hospital.

**Intervention:** Information was evaluated from 52 MI patients for lipid documentation and therapy, documentation of decreased left ventricular function (LVF), and treatment with medications. The proportion receiving beta-blockers, anticoagulation therapy, and counseling on cardiac risk factor reduction was assessed.

**Outcome:** Before hospital discharge, 32% of patients had lipids measured, and 43% were placed on lipid-lowering therapy. Sixty-eight percent of the patients with LVF less than 35% were on an ACE inhibitor, 58% on beta-blocker therapy, 95% on anticoagulation therapy, and 78% on blood pressure medication. Eighty-five percent received counseling on smoking cessation and 91% on physical activity guidelines.

**Conclusion:** Results indicate that in eight of the nine items, patients had a higher incidence of compliance with AHA guidelines in comparison with national norms. However, compliance falls below standards outlined by the AHA. Barriers have been identified and actions implemented to improve compliance levels.

**Learning Objective:** Participants should be able to identify AHA guidelines for secondary prevention and treatment of CVD and barriers to compliance and recognize opportunities for improvement in care.

Thursday, November 30, 2000

## Why Women Return for Breast Cancer Screening: Client Characteristics

*E. Takahashi, R. Otero-Sabogal*

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**Purpose:** To determine what affects timely repeat breast cancer screening (“rescreening”) of women with normal screening findings.

**Background:** Thirty percent of breast cancer deaths can be prevented by routine breast cancer screening of women aged 50 and older, primarily for women who are rescreened. Although considerable research has addressed the reasons women initially come in for mammography screening, there is little research on why women, particularly low-income women, come in for rescreening.

**Method:** A questionnaire measuring breast cancer experiences, practices, and beliefs was administered by telephone in one of five languages to 1,199 clients who received services from one of 105 randomly selected California Department of Health Services-funded clinical sites in 1996. Women were aged 50 or older at the time of service and had normal breast cancer screening results.

**Result:** Women who intended to rescreen through the program were more likely to lack health insurance, have less than a high school education, to have been interviewed in a language other than English, and to be satisfied with the program. Three-fourths of women reported being rescreened in the 2 years since their 1996 screening.

**Conclusion:** Barriers to initial screening in the insured population differ from barriers to rescreening in this low-income population. Apparently unimportant was race/ethnicity, language, immigrant or marital status, transportation problems, or social support.

**Learning Objective:** Participants should be able to identify what client characteristics improve rescreening rates in a low-income population.

Thursday, November 30, 2000

## Osteoporosis, Estrogen Use, and Osteoporosis Counseling Among Missouri Women Aged 45 Years and Older

*J.A. Vradenburg, E.J. Simoes*

**Purpose of the Program:** To identify the sociodemographic distribution of diagnosed osteoporosis (DO) and osteoporosis counseling (OC) and their associations with estrogen use (EU), comorbidities, and health care access.

**Method:** This study used data from the 1998 and 1999 Missouri Behavioral Risk Factor Surveillance System. Random-digit-dialed computer-assisted telephone interviews were conducted with 2,615 women aged 45 years and older. Prevalence estimates and standard errors were generated using SUDAAN.

**Result:** Among Missouri women aged 45 years and older, 12% had DO, 30% of whom reported current EU. Women who were older than 65 (19%), white (13%), retired (18%) or disabled (17%), and had an income of <\$20,000 had higher prevalences of DO. Women with DO had significantly higher prevalences of arthritis (80%), activity limitation (47%), requirement of aid (53%), and poor general health (44%). For women with DO, EU was less prevalent among those aged >75 years (12%), disabled (17%), with an income of <\$20,000 (22%), with an activity limitation (26%), physically inactive (22%), overweight (26%), without coverage (20%), and without a checkup in the past year (17%). The prevalence of OC was significantly lower among minorities (29%), the unemployed (19%), and those without coverage (23%), with cost as a barrier (26%), and without a checkup in the past year (22%).

**Conclusion:** DO is associated with some indicators of lower socioeconomic status (SES), comorbid conditions, and barriers to health care. Segments of lower socioeconomic status and at-risk groups may experience reduced EU and OC prevalences due to access to care issues. To improve the quality of life and reduce economic costs, interventions should target these groups.

**Learning Objective:** Participants should be able to identify the associations of osteoporosis and counseling with estrogen use, comorbidities, and health care access.

Thursday, November 30, 2000

## Diverse Partnerships to Eliminate Disparities and Improve Care and Self-Management Skills for Persons With Diabetes

*E. Babb, B. Paul*

**Purpose of the Program:** To demonstrate the value of partnerships in improving quality of care and eliminating disparities in communities surrounding three community health centers.

**Setting:** Interventions are focused around three federally qualified community health centers (CHCs) in the state and surrounding communities where patients are empowered to better manage or recognize symptoms of diabetes. Diverse partnerships around the state enable efficient use of resources and avoid duplication of efforts.

**Intervention:** Initial partnerships were developed between the South Carolina Diabetes Control Program, the South Carolina Primary Care Association, and three CHCs. The CHCs became part of the Bureau of Primary Health Care/Health Resource Services Administration Collaborative, where they receive training in a model for improvement and rapid change cycle, participate in ongoing conference calls, and submit monthly reports. Chart audits were performed at the centers to obtain baseline data in collaboration with the state's Peer Review Organization and Racial and Ethnic Approaches to Community Health (REACH) grant. Partners such as local health professionals, *Diabetes Today* groups, minority health offices, regional and local coalitions, transportation providers, and the state's Diabetes Control Program provide resources, including education, materials, chart audit guidelines, free screenings, rides to clinics, and referrals.

**Conclusion:** Multiple partnerships can enhance patient care, improve access to care, and empower chronically ill patients to live healthier lives.

**Learning Objective:** Participants should be able to describe a multifaceted model of partnerships, be able to identify potential partners, and describe how partnering can result in measurable outcomes that show improvement in care and self-management skills of chronic disease patients.

Thursday, November 30, 2000

## The National Nutrition Summit—A Call to Action

*P.M. Coates, E. Kennedy, W. Dietz, E. Cooney, on Behalf of a Joint DHHS - USDA Steering Committee*

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**Purpose:** The National Nutrition Summit, held in May 2000, addressed three major challenges: hunger, overweight, and obesity, and the role of nutrition and physical activity in disease prevention.

**Background:** More than 30 years has passed since the 1969 White House Conference on Food, Nutrition, and Health. The Conference coalesced people from all segments of the community around solutions to problems of hunger. It led to the development of federal initiatives that included the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), nutrition labeling, and expansion of the school lunch program. In the ensuing years, hunger has been ameliorated although not eliminated, and the insidious problem of overweight and obesity has emerged. At the same time, awareness has increased of the role of diet and physical activity in modulating risk for chronic diseases (e.g., cardiovascular disease, cancer, osteoporosis).

**Outcome:** Several federal initiatives were announced at the Summit, along with a call for development of public-private partnerships to address these challenges. The new Dietary Guidelines for Americans were released, which now include a separate Guideline on physical activity, emphasis on consumption of whole grains, and a new Guideline on safe food-handling practices. New Growth Charts were released by the Centers for Disease Control and Prevention that allow tracking not only of height and weight but also of body mass index in children aged 2–20 years. Sessions dealt with hunger and food assistance programs, multiple influences on overweight and obesity, behavioral and environmental change strategies, and nutrition and physical activity issues at various stages of the lifespan. Recommendations will be presented for each of these topics.

**Learning Objective:** Participants should be able to identify the most pressing national needs for nutrition and physical activity intervention.

Thursday, November 30, 2000

## Ministerio de Salud: A Model for Health Promotion and Disease Management in a Hispanic Community

*S. Kolb, I. Gilliland, K. Light*

**Purpose of the Program:** To develop a collaborative model aimed at capacity building and improvement of health in a predominantly Hispanic community in San Antonio, while providing a vehicle for instilling a sense of community responsibility among students, faculty, and residents.

**Setting:** A collaborative effort between University of the Incarnate Word, CHRISTUS Santa Rosa Health Care, Metropolitan Health District, St. Philip of Jesus parish, the Ministerio de Salud is located in an area where 33% of families live below poverty level, and diabetes and hypertension are significant problems. Health promotion and disease management are not always a priority.

**Intervention:** Goals are accomplished through a service learning model. University students, faculty, the parish nurse, promotoras and the project manager, with oversight from the Parish Health Council, conduct assessments, health screenings, health education programs, and referrals/case management.

**Outcome:** Through collaborative participation, members of the partnership have increased their awareness of health needs of the community and of the importance of health promotion and maintenance. Through health promotion activities, members of both the university and parish have increased awareness and use of available resources for health promotion and disease management.

**Conclusion:** The Ministerio de Salud benefits participants and provides a means for members of the parish and university to contribute meaningfully to the community. Participation in health promotion activities has increased awareness of the importance of lifestyle in disease prevention and management, and the use of existing health resources. Additionally, community members are taking increased responsibility for the health of their community.

This project is supported through a grant from the Pierre Fund of the Sisters of Charity of the Incarnate Word and the Kennedy Memorial Foundation.

**Learning Objective:** Participants will be able to describe the development of a University-Community partnership for health promotion and disease management in a Hispanic neighborhood, and discuss the benefits of a service learning model for collaborative health promotion and disease management.

Thursday, November 30, 2000

## Health Risk Behaviors and Use of Preventive Services Among Residents of Large Urban Areas

*J. Bolen, D. Nelson, E. Powell-Griner*

**Purpose:** We describe the prevalence of health risk behaviors (hypertension, diabetes, high cholesterol, obesity, and smoking) and use of preventive services (breast, cervical, and colorectal cancer screening, and influenza and pneumococcal vaccination) among respondents living in large urban areas. This is a new use of an existing state-based surveillance system.

**Background:** There is strong interest in obtaining information about health behaviors among substate populations to better target prevention programs and efficiently allocate public health resources.

**Method:** Data from the 1997 Behavioral Risk Factor Surveillance System (BRFSS) were used to calculate prevalence estimates for the largest urban areas in the United States with at least 400 respondents. Data were weighted to the census estimates for the urban population.

**Result:** We found a wide range of estimates across cities. For example, obesity among adults was lowest in San Francisco (6.7%) and highest in the Huntington-Ashland area of West Virginia, Kentucky, and Ohio (22.5%). The median for cities was 16.1%, and median for states was 16.6%. Influenza vaccination among adults aged 65 years or older was lowest in Lexington, Kentucky, (43.7%) and highest in Casper, Wyoming (78.3%). City and state medians were 67.1% and 65.9%, respectively.

**Conclusion:** Our findings show that the BRFSS data can support data analysis for large urban areas within states. For cities with the largest sample sizes, estimates can be stratified by gender, race, and educational level.

**Learning Objective:** Participants will have an awareness of a new use of the BRFSS for generating estimates for large urban areas.

Thursday, November 30, 2000

## Communities' Perception of the Physical Infrastructure and Policies Conducive to a Heart-Healthy Lifestyle

N.H. Kabeer, E.J. Simoes, S. D' Isabel, B.M. Waterman, R.C. Brownson

**Purpose of the Program:** To assess individuals' perception of their communities' physical infrastructure, barriers, and enabling factors conducive to leisure-time physical activity (LTPA) and eating of heart-healthy foods.

**Background:** Cardiovascular disease (CVD) is the leading cause of mortality and disability in the United States. Physical inactivity and poor nutrition are important contributing risk factors.

**Method:** A CVD "Special Survey" administered to targeted communities exhibiting high CVD rates (n=2,821) assessed perception of environmental infrastructures, barriers, and enabling factors for a heart-healthy lifestyle, and measured individual-level behaviors and associations between the infrastructure and a heart-healthy lifestyle.

**Result:** A great majority perceived the presence of environmental infrastructures conducive for LTPA and availability of fruits and vegetables (F&V) conducive for heart-healthy eating. Likelihood of being physically active was greater among males (odds ratio [OR]=1.7, 95% CI 1.4, 2.1), those having high education (OR=2.5, 95% CI 1.7, 3.5) and having outdoor facilities (OR=1.7, 95% CI 1.3, 2.1) than among older people (OR=0.7, 95% CI 0.6, 0.8). Likelihood of consuming >5 F&V a day was greater among older people (OR=2.0, 95% CI 1.7, 2.3), those with higher education (OR=2.6, 95% CI 1.9, 3.5), and those who had health information available in the neighborhood (OR=1.5, 95% CI 1.2, 1.7), in contrast to being male, African American, and having a cost barrier to purchasing F&V (all OR=0.7, 95% CI 0.6, 0.9).

**Conclusion:** This baseline assessment indicated the need for making environmental and policy improvements by reducing the cost of F&V, establishing more health information groups in the community, and creating more outdoor facilities to promote an environment conducive for a heart-healthy lifestyle.

**Learning Objective:** Participants should be able to describe what environmental infrastructures, barriers, and enabling factors are conducive to LTPA and a heart-healthy diet and to apply this information to develop environmental and policy changes conducive to a heart-healthy lifestyle.

Thursday, November 30, 2000

## Cigarette Smoking Among the Adolescent Population: Clustering of Unhealthy Behavior

N.H. Kabeer, E.J. Simoes, N. Miller, R.C. Brownson

**Purpose of the Program:** To investigate the role of unhealthy behaviors in predicting smoking among adolescents in Missouri.

**Background:** Smoking is the single most important risk factor for chronic disease. Adolescent smoking has become a growing concern in public health because an increasing number of young people initiate smoking each day.

**Method:** This study uses data from the Youth Risk Behavior Survey (YRBS) for 1995 and 1997 (n=5,447). We conducted logistic regression analyses to examine the relationships with ever, current, and former smokers and predictors such as sociodemographic factors, unhealthy behavior, and weight status.

**Result:** Weighted frequencies indicated that 74% of the adolescents reported smoking some time in their life. The likelihood of being an ever smoker was positively associated with thoughts of suicide (OR=1.6, 95% CI 1.3,2.0), lack of regular of physical activity (OR=1.5, 95% CI 1.2,1.8), lack of seat belt use (OR=2.1, 95% CI 1.7,2.6), increased number of days the respondent drank during the past month (OR=6.5, 95% CI 4.2,9.9), and initiation of drinking at a very young age (OR=10.0, 95% CI 7.3,13.6) in comparison to never smokers. Similar associations were true for current smokers versus former smokers.

**Conclusion:** Cigarette smoking was strongly correlated with a number of behaviors that would be considered unhealthy or risky. Our findings suggest that unhealthy behaviors may cluster among adolescents who smoke. Program planners can use this information to develop prevention strategies by simultaneously targeting other unhealthy behaviors, such as drinking, physical inactivity, and lack of seat belt use, to instill the importance of maintaining good health.

**Learning Objective:** Participants should be able to describe the factors that identify adolescents who have ever smoked at least one or two puffs. Furthermore, participants should be able to distinguish, among ever smokers, the predictors of those who were current smokers versus former smokers.

Thursday, November 30, 2000

## Customizing the Practice Management System to Support Population-Based Diabetes Management

*J. Thompson, K. Hendry, E. Kusnetzoff, S. McCree*

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**Purpose of the Program:** To use existing technology to improve patient care.

**Setting:** La Clinica de la Raza is a nonprofit community health center serving primarily a Spanish-speaking, low-income, uninsured population with a high incidence of diabetes.

**Intervention:** A collaborative team of clinicians and information systems staff developed its own diabetes registry using Merritt, a practice management system running on the Pick operating system. It took demographic information collected at registration and integrated it with visit, diagnosis, and clinical data; lab and medication components were added electronically. Clinicians used this as a flow sheet at patient visits and manually entered other desired information. The system could be customized for other diseases and preventive health measures, producing a wide range of reports.

**Outcome:** The team used the registry to track various diabetes care measures monthly and decide on interventions to improve care. All patients with diabetes were assigned primary providers, who received computer-generated registry information on their patients at the time of each visit and periodic summaries of their patient panels.

**Conclusion:** Working collaboratively, clinicians and information systems staff can adapt a practice management system to produce useful clinical data, which can enable community health centers without electronic patient records to conduct state-of-the-art, population-based disease management.

**Learning Objective:** Participants should be stimulated to think of how other community health centers can create their own integrated data systems to improve care for specific patient populations.

Thursday, November 30, 2000

**Using Comprehensive Functional Assessment and Self-Management Approach as Tools to Plan and Manage Community Health Care for the Aged in Shanghai**

*F. Dongbo, S. Yi-e, X. Zhao-lin, Y. Ting-ting, W. Cui-e, W. Zhi-hua, F. Hua*

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This poster will present results of improving quality of community health care for the aged through the health care management cycle using the Comprehensive Functional Assessment (CFA) and Self-Management Approach (SMA).

Thursday, November 30, 2000

## Barriers to Physical Activity Among Adult Californians

*P.K. Goel, C.E. Weidmer, W. Shoemaker*

**Purpose of the Program:** To identify target groups for physical activity interventions among adult Californians using an existing information source.

**Method:** We analyzed the California Behavioral Risk Factor Surveillance System (BRFSS) data from 1997 that for the first time asked BRFSS respondents about perceived barriers to physical activity. The 1997 BRFSS has a response rate of 60%, similar to that reported by other western states.

**Result:** Of the 1,865 respondents who provided information, 27% reported no barrier, 30% one barrier, and the remaining 43% reported more than one barrier to physical activity. Overall, about 52% of the respondents reported lack of time, lack of energy (32%), lack of company (20%), lack of enjoyment (17%), safety concerns (17%), and self-consciousness (10%) as barriers. Females, Hispanics, and Others (mainly Asians), those in 18–44 age-groups, having either some high school or less education, at risk for being overweight, in good to poor general health, having more than one day of poor mental health last month, and household size of four or more with one or more child in the household (irrespective of age) were more likely to report more than one barrier.

**Conclusion:** This statewide data helps identify subgroups of California's adult population that perceive more barriers to physical activity. Programmatic interventions aimed at increasing physical activity should consider targeting these subgroups to obtain more returns on their prevention dollars.

**Learning Objective:** Participants should be able to describe barriers to physical activity and subgroups that are at greater risk.



**Roundtables**

## A Three-Way Partnership to Promote Breast and Cervical Health: Using Movie Theatres as a Promotion Channel

*E. Gonzalez*

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**Purpose of the Program:** To explore the use of movie houses as a channel for breast and cervical cancer screening messages and to promote use of the regional Cancer Information Service (CIS).

**Setting:** Through a collaboration of the Atlantic Region CIS and the Delaware Department of Health in 1998–1999, a series of advertisements were used in three movie theatres in Wilmington, Delaware, to increase awareness of the importance of breast and cervical cancer screening and resources such as the CIS and the National Breast and Cervical Cancer Early Detection Program (NBCCEDP).

**Intervention:** On the basis of a review of call data to the CIS, we were concerned that Delaware residents might not be familiar with the CIS and our ability to refer to free cancer screenings through the NBCCEDP. Our plan was to advertise information about the importance of early detection for breast and cervical cancer and about the CIS in movie theatres. We created three slides that were projected during preshow advertisements in three theatres over a 26-week period in 1999. We looked at increases in call volumes from Delaware to evaluate the effectiveness of the strategy.

**Outcome:** Data show an increase in calls from Delaware in the 6-month period following the advertising run. However, it is difficult to determine if callers learned about the CIS directly from those advertisements.

**Conclusion:** It remains unclear whether the increase was due to the promotion. The process suggests avenues for future efforts to promote breast and cervical health. It also highlights the limitations of evaluating the use of paid advertising.

**Learning Objective:** Participants should be able to recognize facilitators and barriers to cancer education programming using movie theatres and identify ways to address these challenges with similar efforts in cancer control.

## WellNYS 2000—Promoting Physical Activity and 5 A Day in the 21<sup>st</sup> Century via E-mail

*L.C. Wolfe*

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**Setting:** New York State Department of Health worksites statewide.

**Intervention:** Employees at the New York State Department of Health participated in a monthly incentive-based goal-setting program. The program was developed on Lotus Notes and was publicized to 5,000 Department of Health employees. Tri-weekly E-mails were sent to all participants to promote participation. Participants were required to set monthly goals and keep track of their physical activity and fruit and vegetable consumption for the first 7 days of each month, March–October. A new behavior was discussed each month. Three of these behaviors were also tracked, including consumption of water and low-fat dairy products, and stress management sessions. The program was expanded from the original Commissioner's Physical Activity and Nutrition Program the department had conducted for the last 3 years. That program was done with a paper registration. Those results took weeks to compile. Evaluation of WellNYS 2000 was done immediately and sent right to administrators.

**Outcome:** The program is currently under way, but will be evaluated in October when the program is over. Monthly participation rates and evaluation of progress are being done using the stages of change model.

**Conclusion:** Using an internal E-mail system to promote health promotion is instant, registration is fast, and the evaluation material is accessible immediately.

**Learning Objective:** Participants will understand how to use the internal E-mail system to educate and promote a physical activity and 5 A Day program.

## Factors Affecting Use of Self-Help Education Options by Adults With Arthritis in Minnesota

*P. Van Zyl York, J. Geppert*

**Purpose of the Program:** To develop consumer information research to direct efforts for self-help training for people with arthritis in Minnesota who are not now participating.

**Background:** The Arthritis Self-Help Course has been demonstrated to positively affect function and quality of life for people with arthritis. More than 15% of the adult population in Minnesota is affected with arthritis, increasing to almost 50% of older Minnesotans. Currently, self-management education reaches only a fraction of the people in Minnesota who might benefit. Information is needed to facilitate effective promotion of these options to maximize participation and identify other options for information delivery that will meet audience needs.

**Outcome:** Focus groups were conducted across Minnesota with adults with arthritis who had not participated in the arthritis self-help course to collect information about the type of information they had received about arthritis, where they had received the information, what they found useful, formats they preferred, factors that affected their participation in education and information programs, and their suggestions for overcoming barriers to participation and alternatives to traditional delivery methods.

**Conclusion:** Factors associated with location, time, duration, and other access issues can be modified to increase participation. Participation can be increased by using different channels to inform potential participants and by enlisting physicians in referring patients. Some potential participants find multisession classroom-type instruction unappealing and will need other delivery methods to receive self-help instruction.

**Learning Objective:** Participants should be able to describe use of qualitative audience research data in program improvement.

## Technology and Chronic Disease Program Advocacy: the National Arthritis Action Plan

*K. Brennan, D. Zook*

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**Purpose of the Program:** To provide a case study of developing and implementing chronic disease program advocacy using advanced communications technologies.

**Setting:** The National Arthritis Action Plan is entering the second year of nationwide implementation through a partnership between the Centers for Disease Control and Prevention (CDC), the Arthritis Foundation, and the Association of State and Territorial Health Officials (ASTHO). The Foundation is pursuing a focused advocacy effort at the national and state level to increase public and private resources for this purpose. The Foundation is using Internet, relationship management software, and other technology capabilities to support this initiative.

**Intervention:** The Arthritis Foundation possesses a variety of technological assets that were primarily designed for awareness and fundraising purposes. The Foundation's Public Policy and Advocacy Department has worked with internal and external staff to develop new advocacy applications for these systems.

**Outcome:** Internet, telecommunications, and computer-based capabilities have been developed at both the national and chapter levels within the Arthritis Foundation to support advocacy for National Arthritis Action Plan implementation. These systems provide educational, motivational, and action platforms for this purpose that are readily adapted to local requirements.

**Conclusion:** Effective advocacy efforts by voluntary health organizations for nationwide chronic disease programs will increasingly rely on technology platforms for successful dissemination and implementation.

**Learning Objective:** Participants should be able to identify organizational technology resources and strategies, or current gaps, that can be used to enhance advocacy for chronic disease programs and other policy objectives.

## Coalition of Hispanic Women Against Cancer—Early Community Involvement: A Key to Success

*X. Ilabaca-Somoza*

**Purpose of the Program:** To create a community organization capable of sustaining and directing community education to increase breast cancer early detection among Hispanics in Kansas City area.

**Setting:** In 1996 the Kansas Cancer Institute at the University of Kansas Medical Center started an outreach program targeting medically underserved Hispanic women in Kansas City. In May 1997, the Coalition of Hispanic Women Against Cancer (CHWAC) was founded.

**Intervention:** Early involvement and the sense of community belonging are the main strategies used. A dynamic outreach and educational program provides minority communities from Kansas City with cancer information in a culturally competent way, identifying and addressing community barriers to free screening services available to medically underserved women by acting as a referral source.

**Outcome:** Breast cancer screening numbers for Hispanic women in Kansas City, Kansas, increased from 9 in 1996, to 270 between 1998 and 1999. Medically underserved Laotian women were also screened in 1999. A chapter of the CHWAC has been established in a rural area of Kansas.

**Conclusion:** Direct community involvement allows us to collect firsthand information; identify and address barriers that a community faces; and better use preexisting community and institutional resources. This dynamic model can be easily replicated, enabling communities to find unique solutions to unique barriers for screening.

**Learning Objective:** Participants will learn the difference between working with the community and working at the community, and be able to replicate the model.

## Addressing the Disparity in Cervical Cancer Morbidity and Mortality Among Whites, Blacks, and Hispanics

*S. Chapman, L. Gilbert*

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**Purpose of the Program:** To provide a forum for information exchange.

**Setting:** In 1997 the Centers for Disease Control and Prevention (CDC) funded a 5-year demonstration project to design a national model to increase Papanicolaou (Pap) screening and follow-up among low-income rural Latinas and low-income, urban African American women. The project is being piloted in two North Carolina counties.

**Intervention:** The Cervical Cancer Prevention Project (CCPP) has created printed educational materials, a recorded information telephone line, and a workshop curriculum.

**Outcome:** Qualitative data was collected and analyzed from key informant interviews and focus group discussions in each county. Core concepts were developed, around which each intervention was tailored. The workshop curriculum was pilot tested in fall 1999, revised during winter 1999, and is currently being implemented in each county.

**Conclusion:** This roundtable discussion will model popular education techniques such as those used in the CCPP workshops to provide a forum for participants to learn from the CCPP's experiences with these two priority populations while sharing their own experiences. The discussion will include outreach strategies and recruitment, message development based on qualitative research, and quantitative and qualitative evaluation techniques.

**Learning Objective:** Identify techniques for recruiting underserved populations. Implement activities that model popular education techniques. Describe quantitative and qualitative evaluation techniques.

## Evaluating Efficacy of Traditional Indian Healing in Chronic Disease Management

*J. Olson-Garewal, J. Joe*

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**Purpose of the Program:** To identify organizational and regulatory obstacles to Medicaid coverage of traditional Indian practitioners' services to tribal members with diabetes.

**Setting:** Arizona. Diabetes is a particularly appropriate disease to study because it has reached epidemic proportions among some tribes, especially in the American Southwest, following changes in traditional lifestyle.

**Method:** Qualitative evaluation and retrospective case study.

**Result:** Medicaid's reasons for not routinely covering traditional healers for diabetes are several: because evidence of therapeutic efficacy has not been established, provider credentialing procedures are not in place, and usual and customary charges are difficult to establish. Although traditional healers usually do not treat diabetes as a diagnostic entity per se, they do treat people with diabetes for more holistic concerns of health and well-being with a number of modalities. Therefore, if a study is to be done of therapeutic efficacy, how is it to be measured, by traditional healers' standards or by allopathic standards? The authors, a medical anthropologist and a former Medicaid Medical Director, have developed a retrospective case control study to evaluate efficacy of traditional healing in diabetes using allopathic standards, and examining nature and strength of traditional cultural beliefs relative to allopathic outcomes.

**Learning Objective:** Participants should be better able to identify and evaluate aspects of Medicaid policy and regulation that have an impact on making culturally competent care available to Native Americans.

## Risk Factors for Diabetes and Its Complications Among Racial Groups in Region VIII

*B.A. Larsen, M. Friedrichs*

**Purpose of the Program:** To assess risk factors for diabetes and its complications among racially diverse populations in Health and Human Services (HHS) Region VIII for development of targeted interventions.

**Background:** Diabetes mellitus and its complications disproportionately affect persons of color. To reduce these disparities, diabetes control programs have been charged with implementing programs targeting high-risk populations.

**Method:** Five years of BRFSS data (1994–1998) were combined for Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming to provide sufficiently precise estimates for diabetes prevalence, health status, and level of care for racial groups represented.

**Result:** A total of 55,746 (91.5%) non-Hispanic white(W); 446 (.7%) African American, non-Hispanic (AA); 2,882 (4.7%) Hispanic (H); 443 (.7%) Asian/Pacific Islander (A/PI); 1,185 (1.9%) American Indian/Alaska Native (AI/AN); and 231 (.4%) “other” interviews were included in the analysis. Diabetes prevalence was highest for AI/AN women (8.2%) and AA men (6.9%). Persons with low income or less than a high school education were three times more likely to have diabetes in the AI/AN and H groups. Obesity rates (body mass index >30) for AA, AI/AN, H, and W persons with diabetes were more than twice the rates of counterparts without diabetes. Persons with diabetes in every group were more likely to report fair or poor health status. Additional results on health insurance status, hemoglobin A<sub>1c</sub>, glucose, cholesterol, eye and foot exams, and influenza vaccination will be presented.

**Conclusion:** Combining BRFSS data from like states with small, racially diverse populations can enable program staff to assess health status and risk factors for diabetes and its complications among racial groups.

**Learning Objective:** Participants will be able to describe a method that can be used to assess ethnic and racial-specific diabetes data for states with small, ethnically diverse populations.

## Public-Private Partnerships: Creative Strategies for Improving Access to Screening Services in Communities of Color

*C. Boyce, R. Spencer, Jr.*

**Purpose of the Program:** To provide creative and successful strategies developed by the Ohio Commission on Minority Health that made health information, services, and screenings available in nontraditional locations.

**Setting:** Minority Health Month is an annual 30-day high-visibility wellness campaign conducted since April 1989. More than 300 community-planned events focus on such topics as health promotion, disease prevention, and health careers. Additionally, the Commission develops partnerships and pilot projects. In April 2000, the Commission provided various types of health screenings in locations that have a high volume of foot traffic in communities of color. Screening sites included fast-food restaurants and grocery stores located in Cleveland and Columbus, Ohio. Collaborating organizations that participated in health screenings were the African American Cancer Support Group, American Cancer Society, Blue Chip Broadcasting, Bristol Myers Squibb, Chi Eta Phi (black nursing society), Cleveland Black Nurses Association, Greater Cleveland Health Education and Service Council, Inc., Kroger (grocery store), McDonald's Restaurants, Tops Friendly Markets, WBNS Eyewitness News (Columbus), and WUAB Channel 43 (Cleveland).

**Intervention:** The partnerships that will be highlighted in this presentation were Commission-generated initiatives designed to pilot ways to improve access to, and the acceptability of, health services by working with community-based agencies, media outlets, for-profit businesses, and nonprofit organizations. One of the other key reasons for the success of these initiatives is that health services are taken to the community instead of the community coming to health providers for services.

**Outcome:** Glucose, cholesterol, and hypertension screenings were conducted at grocery stores in Cleveland and Columbus, Ohio. Women received mammograms at select McDonald's restaurants in Columbus. Outcome information from the screenings was recorded by the health agencies that participated in the screenings and will be provided to workshop participants.

**Conclusion:** Forming public-private community partnerships offers cost-effective and culturally specific ways to conduct health services in communities of color.

**Learning Objective:** Participants will understand the process and strategies used to form partnerships, the value of involving a broad-based group of organizations, the effectiveness of making health services more convenient, and the cultural considerations involved in providing health services at nontraditional locations.

## Participatory Priority Setting of Racial and Ethnic Health Disparities by a Community Coalition

*The REACH Promotora Community Coalition*

**Purpose of the Program:** To develop a local community action plan to eliminate racial and ethnic disparities in health.

**Setting:** The Coalition is one of 35 coalitions nationally to receive funding from the Centers for Disease Control and Prevention (CDC) for a 1-year planning phase.

**Intervention:** At 46 community work groups with more than 600 residents, community members selected a priority health disparity area and identified solutions to reduce disparities.

**Outcome:** Forty-three percent of the participants chose diabetes; 25%, breast and cervical cancer; 18%, human immunodeficiency virus/acquired immunodeficiency syndrome; and 13%, heart disease. Participants suggested we 1) improve access to health care for low-income persons; 2) locate comprehensive and affordable services near the community; 3) provide health education and information in people's homes, schools, churches, and supermarkets; 4) offer affordable, accessible health screenings; and 5) create a community environment that encourages healthy behaviors.

**Conclusion:** The results of the community work groups were used to develop a community action plan to reduce racial and ethnic disparities in diabetes. The community action plan consists of three integrated strategies: 1) a school-based primary prevention program, 2) a clinic-based secondary prevention program, and 3) a communitywide intervention that includes walking clubs and cooking classes.

**Learning Objective:** Participants should be better able to 1) plan and facilitate participatory work groups that set health priorities, 2) share results with community members, and 3) use results to develop a plan that responds to the needs of the community.

## A Collaborative Approach to Policy Development: Chronic Disease Case Management

*R. Matticks, R. Mazzotti, C. Nandi, E. Sternberg*

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**Purpose of the Program:** Through a state-local partnership, develop policies for and pilot a case management model that can be applied to a variety of chronic diseases.

**Setting:** A working group of representatives from Illinois state agencies (Public Aid, Public Health, Human Services) developed a model for chronic disease case management for implementation in local public health programs. The group determined policy implications and guided the process to achieve support from relevant state and local agencies, advisory groups, and policy makers to pilot activities focusing on diabetes and asthma.

**Intervention:** Describing the burden of specific chronic diseases (diabetes, asthma) on low-income populations, determining available infrastructure resources and ways to link data, identifying action plans for local pilots and achieving buy-in from policy makers. Collaborations developed during this process helped to better coordinate diabetes management plans with primary care providers, local health department case managers, and pharmacists.

**Outcome:** Agencies' roles and chronic disease focus identified; pilot plan developed and approved; buy-in achieved from local pilot sites; pilot programs implemented; and baseline and preliminary data analyzed.

**Conclusion:** This approach enhances patient education and empowers a team from different disciplines and state agencies to improve client and provider satisfaction and health outcomes. It can be replicated for other chronic diseases and by other states, and demonstrates the ability of multiple agencies to collaborate in coordinating their state-directed goals to provide better health care.

**Learning Objective:** Participants should be able to identify the roles of key agencies; to understand the essential components of this case management model; and to adapt this approach to their management of chronic diseases.

## Collaboration With a Medical School to Meet Educational Needs of Clinicians in Chronic Disease Areas

*L. Riggsbee, B. Walker, R. Etheridge*

**Background:** The North Carolina Breast and Cervical Cancer Control Program (NC BCCCP) identified a need to provide clinical breast examination (CBE) instruction and skills enhancement to health department clinicians in the screening program. The Comprehensive Cancer Center of Wake Forest University School of Medicine (CCCWFU) presented preliminary results of a medical school project involving use of an instructional model using simulated patients to teach CBE to medical students. After the presentation we approached Northwest Area Health Education Center (AHEC) of Wake Forest University School of Medicine and CCCWFU to explore developing a skills-enhancement workshop using this model for clinicians performing CBE with the BCCCP and chronic disease population.

**Intervention:** Together, the agencies developed a 4-hour workshop. The workshop included a didactic and a clinical component. The workshop included a didactic and clinical component. Performance of a CBE on a trained simulated patient was included. Participants received feedback from the patient and a trainer. A total of 127 clinicians participated in four workshops.

**Outcome:** Process evaluation data (77% response rate) results were extremely positive. More than 90% indicated they had made modifications in their performance of CBE.

**Conclusion:** The data illustrate that instructional models used in medical schools may be directly applicable to practicing clinicians in health departments. Medical schools and their related AHECs are uniquely situated to provide both state-of-the-art skills instruction and continuing education credits for health department clinicians. This type of collaboration should be pursued as an avenue to enhance and upgrade skills of health department clinicians working in chronic disease areas.

**Learning Objective:** Illustrate the creative partnering of educational agencies and a chronic disease program to develop new skills of clinicians involved in a chronic disease screening program.

## The American Cancer Society's Collaborative Evaluation Fellows Project: A Nationwide Model for Local Evaluations

*D. Compton, M. Baizerman*

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**Purpose of the Program:** To create for the American Cancer Society (ACS) a nationwide model for local collaborative program evaluation between ACS offices and local university public health faculty and students.

**Setting:** The ACS is a nationwide voluntary health organization with a national office, 17 regional offices, and community-level offices. Little program evaluation was being done locally, although required externally and internally. Schools of public health had to meet accreditation requirements for practical training, and other students needed this experience and a thesis project.

**Intervention:** The Robert W. Woodruff Foundation funded the creation of the Collaborative Evaluation Fellows Project (CEFP), a 5-year nationwide project that allowed 19 local collaborations to be formed between ACS offices and universities to complete practical, usable, low-cost evaluations of ACS programs, while students meet university graduation requirements, learn about public health and evaluation careers, and receive a stipend.

**Outcome:** By the third year (1999–2000), 18 active ACS offices were working with faculty in 19 universities who had supervised 85 CEFP projects, of which about 30% were used as theses. The nationwide project had been institutionalized within ACS at the national headquarters and in its regions, with mixed funding. All ACS and universities once having participated continued to do so. Data show ACS use of study findings on the local and national levels, and external evaluations show project effectiveness on both ACS levels and for faculty and students.

**Conclusion:** CEFP is an effective model for producing local evaluations that are practical, usable, low-cost, timely, understandable, and impactful. It is also useful in training public health graduate students, involving faculty with actual public health issues and practices, and meeting school of public health accreditation needs: a win, win, win effort.

**Learning Objective:** Participants should learn about CEFP as a model, how it actually works, and how it could be adapted to their context.

## Living With Chronic Conditions and Disabilities: How Elders Adapt and Age Successfully

*R. Palombo, D. Brooks, L. Mucci*

**Purpose of the Program:** To assess the impact of social support on well-being of adults aged 65 years and older with disabilities and chronic conditions.

**Background:** Currently, 12.5% of the Massachusetts population is aged 65 years and older. By 2030, more than 20% of the population will be 65 and older. As people grow older, they are more likely to have chronic conditions and disabilities. How people adapt to health limitations influences their quality of life, independence, life satisfaction, and use of medical services.

**Method:** The 1999 Massachusetts Behavioral Risk Factor Surveillance Survey (BRFSS) data were analyzed to determine the associations between sociodemographic characteristics and social support that affect well-being.

**Result:** In 1999, 45% of adults age 65 and older reported one or more difficulties with activities of daily living (ADLs), mobility, hearing, or vision. More than 70% reported having at least one of seven chronic conditions: arthritis, respiratory illness, hypertension, heart disease, diabetes, stroke, or cancer. Data on the impact of marital status, education, income, gender, race, and age on social support will be presented. Elders with health limitations who are isolated are less likely to have adequate social support than elders who are connected with others.

**Conclusion:** The findings from this analysis indicate that social support is particularly important to the well-being of elders with chronic conditions and disabilities.

**Learning Objective:** Participants will be able to describe the sociodemographic characteristics associated with social support among adults aged 65 and older with chronic conditions and disabilities.

## State-Level Program Assessment in Physical Education Designed to Impact Physically Active Lifestyles in South Carolina

*J. Rink, M. Mitchell, D. Hohn*

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**Purpose:** To develop and carry out a state-level assessment and accountability program for school physical education programs.

**Setting:** The South Carolina Alliance for Health, Physical Education, Recreation and Dance contracted with the South Carolina State Department of Education to develop an assessment and accountability program for school physical education programs, and the results will be reported on the report card describing the effectiveness of each school.

**Outcome:** The process included getting policy support from the State Department of Education, the Education Oversight Committee, and the State Legislature; developing standards, performance indicators, and assessment materials; and developing policies and procedures for data collection and reporting. The South Carolina Physical Education Assessment Program (SCPEAP) was established to run the program. High school assessment begins with the 2000–2001 school year, and elementary and middle schools begin in the 2001–2002 school year.

**Conclusion:** The SCPEAP program provides a unique way to impact the quality of physical education programs and hold them accountable for impacting the physical activity lifestyle of their students. Although the needs of each state are unique, the model established provides some useful strategies for other states who desire to improve programs and target student learning.

**Learning Objective:** Participants should be better able to establish their own standards, assessment, and accountability programs for state-level assessment.

## Determining What Works in Prevention: An Update From the Third U.S. Preventive Services Task Force

*D. Atkins, S. Teutsch, S.H. Woolf*

**Purpose of the Program:** To review new evidence and methodological issues relating to U.S. Preventive Services Task Force (USPSTF) assessments of clinical interventions to prevent chronic disease.

**Background:** Since 1984, the USPSTF has conducted evidence-based assessments of a wide range of screening tests, counseling, and chemoprevention. The third USPSTF began work in November 1998 to update its 1996 recommendations.

**Method:** Systematic literature reviews were conducted of new evidence on the effectiveness of lipid screening to prevent coronary heart disease; vitamin supplementation to prevent heart disease and cancer; chemoprevention of breast cancer; and screening for diabetes.

**Result:** This roundtable discussion will review the results of these reviews and use them to illustrate challenges in determining the effectiveness of clinical preventive services and in translating evidence from clinical recommendations. Issues include integrating information from clinical trials and observational research, using modeling to project benefits of earlier intervention, determining balance of benefits and risks for interventions in populations of varying risk, and developing valid criteria for assessing risk in the primary care setting.

**Conclusion:** Important new evidence from the past 5 years addresses the effectiveness of clinical preventive services aimed at chronic disease. The USPSTF uses an explicit process for evaluating evidence and for translating that evidence into recommendations appropriate for the primary care setting.

**Learning Objective:** Participants will become familiar with evidence-based methods for assessing preventive services and with new evidence regarding a range of services for chronic disease prevention.

## Community-Based Intervention for Seniors With Minor Depression

*S. Schwartz, J. Kulzer, E. Wagner, P. Ciechanowski, K. Schmaling, C. Collier*

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**Purpose of the Program:** The Program to Encourage Active, Rewarding Lives for Seniors (PEARLS Study) is assessing the effectiveness of an intervention that includes Problem Solving Therapy (a form of behavior therapy), and physical and social activation with seniors with symptoms of minor depression.

**Background:** Minor depression affects 10%–20% of older adults, and can be largely attributed to the number of losses many seniors face. Among older adults, symptoms of depression often lead to physical decline, which in turn can lead to increased depression, creating a rapid downward spiral. Problem Solving Therapy, as well as physical and social activity, have been shown to alleviate symptoms of depression among younger populations. This study will help determine if the same is true for an older population.

**Method:** University researchers are collaborating with local social service agencies that focus on the needs of the elderly. Agency social workers offer study participation to clients older than 60 years of age. Eligible and consenting clients are randomly assigned to the intervention or control group, and we contact their physicians and social workers regarding their study participation. Intervention group study participants are assigned a care manager (who is a social worker from one of the collaborating agencies), who meets with the subject in her/his home for eight 1-hour sessions over a 19-week period. Follow-up interviews are completed with all subjects at 6 and 12 months.

**Result:** We will present results from the 15 pilot cases, preliminary results from full-study participants, and interesting insights into key elements of conducting research with senior-serving community partners. Examples of the latter include special issues in selecting interventionists from among agency staff and recruiting subjects from among agency clientele.

**Conclusion:** This study has shown that there are many advantages, and some challenges, to conducting research projects in close collaboration with community agencies. We will present these trade-offs and why our conclusion is that the advantages greatly outweigh the disadvantages.

**Learning Objective:** Participants should understand important elements of conducting collaborative, community-based, geriatric research.

## Diabetes Management: A Multifaceted Collaborative Approach Within a Managed Care Environment

*S. Burke*

**Purpose of the Program:** To provide a comprehensive disease management program dedicated to improvement of the quality of care provided to members with diabetes within a managed care organization (MCO), to meet national standards, and to decrease barriers to optimal diabetes management.

**Setting:** Approximately 20,000 members of Blue Cross and Blue Shield of the Rochester Area were enrolled in a comprehensive, multifaceted, data-driven diabetes management program. Input from practitioners, members, and representatives from the managed care division provided the design elements to affect the long-term results of this complex disease process. An interactive database was implemented that tracks and identifies individual and aggregate performance and compares against the standards of care approved by the MCO (based on those set forward by the American Diabetes Association). All members who meet identification criteria for inclusion are automatically enrolled with a monthly data refresh from paid claims. The program provides a comprehensive data-driven approach to provide strategies for the management of people with diabetes. It offers a menu of interventions that are applied to the entire population, selected subgroups of diabetics, practitioners, or tailored to the needs of individuals.

**Outcome:** The following are highlights of successes tracked from 1997 to 1999:

- a 10.6% reduction in all hospital admissions (not just those directly related to diabetes).
- a 10% improvement in compliance with annual diabetic eye exams based on HEDIS, from 58% in 1997 to 63.9% in 1999.
- a 47% decrease in admissions for diabetic ketoacidosis (uncontrolled diabetes).
- a 26% increase in use of ACE inhibitors for hypertensive diabetics.
- a 44% improvement in microalbuminuria testing, from 17.6% in 1997 to 25.4% in 1999.
- a 17% improvement in compliance for >1 hemoglobin A<sub>1c</sub> test, improving from 51.6% in 1997 to 60.5% in 1999.
- a 24% increase in cholesterol screening.
- more than \$1 million in calculated individual cost savings for 1998.

**Conclusion:** The program has proven to be extremely successful, generating recognition and support from providers, members, and the Rochester community. Many of the interventions have provided an opportunity to learn what strategies give the best outcomes and which require revision to achieve the desired results.

**Learning Objective:** Participants should be able to identify population management strategies within a chronic disease for improving compliance with nationally recognized standards of care using data analysis and quality improvement processes. In addition, they will be able to identify strategies that have been successful and actions that have had less than optimal results.

## A Tool for Improving Cancer Screening Follow-Up

K. Rowley

**Purpose of the Program:** Improve timeliness of follow-up.

**Setting:** The Utah Cancer Control Program (UCCP) and Utah's local health departments (LHDs) provide breast and cervical cancer screenings. Screeners complete data forms for each client who receives a clinical breast exam, Papanicolaou (Pap) test, and pelvic exam. The forms are mailed to the state office where they are entered into a central data base. UCCP staff noted variability in the submission time of data collection forms that affected the timeliness of appropriate follow-up.

**Intervention:** UCCP staff developed a tracking tool report which lists, by clinic site, clinic date, number of days between clinic and a postmark date of client form and the date the state office received the mailing. The report calculates the average number of days between clinic date and the postmark. Results of the tracking report were provided to LHD screeners. As a result, a new policy was implemented requiring all client data forms be postmarked within 24 working hours of the clinic date.

**Outcome:** The results from the tracking report indicated that the average delay from clinic date to postmark was 12.5 days. After sharing results of the tracking report and implementation of the policy, the average delay from clinic date to postmark is 1.97 days, improving timeliness by 10 days.

**Conclusion:** Implementing a tracking report provided data from which a policy to improve timeliness of client reports was developed and monitored. Subsequently, client follow-up was improved.

**Learning Objective:** Participants should be able to describe a process to ascertain and improve timeliness of clinic data from remote sites and improve follow-up of clients.



